

**BLUE ROCK
ENVIRONMENTAL, INC.**

FILE COPY

Mr. Cody Walker
Associate Engineering Geologist
North Coast Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

November 28, 2005

Re: Dual-Phase Extraction Treatment Report
Cedar Stock Resort
45810 State Highway 3
Trinity Center, California
RWQCB case # 1TTR033
Blue Rock Project No. NC-017

Dear Mr. Walker,

Blue Rock Environmental, Inc. (Blue Rock) has prepared this letter report on behalf of Mr. Cliff Johannsen. This report presents the results of a dual-phase extraction (DPE) treatment event conducted at the subject site located at 45810 State Highway 3 in Trinity Center, California (Figure 1). The DPE treatment was recommended by Blue Rock in a letter report dated July 22, 2005 (*Second Quarter 2005 Groundwater Monitoring Report*). In a subsequent telephone conversation, the North Coast Regional Water Quality Control Board (NCRWQCB) concurred with the DPE treatment recommendation and requested that a workplan describing the proposed event be prepared. Blue Rock subsequently prepared the *Workplan for Mobile High-Vacuum Dual-Phase Extraction Treatment* dated August 18, 2005. The workplan was approved by the NCRWQCB in a letter dated September 15, 2005. Blue Rock completed DPE treatment over the course of 5 days, starting on October 31, 2005 and concluding on November 4, 2005.

Following the background section below, DPE test results are presented beginning on page 4.

Background

Site Description

Cedar Stock Resort is located adjacent to Trinity Lake in Trinity County California (Figure 1). The site is bounded by open forest land with some residential development. Cedar Stock Resort consists of a developed dock and additional parking areas around the former UST locations and a Lodge/Restaurant above the site. There are also various buildings near the site used for rental cabins, boat storage and residences. The resort uses a septic system located approximately 500 feet north of the former UST locations for sewage disposal. Drinking water is supplied by a well located about 1/4 mile north of the former USTs. The two gasoline USTs were previously located on the eastern side of the marina parking area (Figure 2).

The site slopes moderately to steeply toward the east. The Trinity Lake shoreline (high water line at 2,370 feet elevation above mean sea level (msl)) comprises the eastern boundary of the property. To the west, the property rises to 2,600 feet in elevation.

Site History

Cedar Stock Resort was developed in 1962 as a boat launching and storage facility and resort destination. The site was leased from the U.S. Department of Agriculture (USDA) by Boots and Boats Inc. in the early 1970s. In 1980 or 1981, two 5,000-gallon underground gasoline storage tanks (UST) were installed to supply fuel to boat traffic on Trinity Lake. Fuel was delivered via above ground piping to dispensers located on the dock.

Site Investigation and Corrective Action History

In September 1994, the two 5,000 gallon USTs were removed by Evans Construction (Evans). As evidenced by analysis of soil removed from the excavation, concentrations of total petroleum hydrocarbons as gasoline (TPHg) ranged to 2,000 mg/kg. The tank cavity was overexcavated to a depth of approximately 40 feet below ground surface (bgs) to remove hydrocarbons acting as a source of groundwater contamination. Due to adverse site conditions no further overexcavation was performed. The excavation was subsequently backfilled with clean fill.

In an effort to evaluate the lateral extent of petroleum hydrocarbon impact to site soil and groundwater, Clearwater Group (Clearwater) supervised the installation of five soil borings (B-1 to B-5) and four monitoring wells (MW-1 to MW-4) in 1996 and 1997. Gasoline constituent contamination in soil and groundwater were detected in boring B-1 approximately 25 feet downgradient of the former excavation. Analysis of groundwater samples indicated concentrations of TPHg at 2,400 micrograms per liter ($\mu\text{g/L}$), MTBE at 2,000 $\mu\text{g/L}$, and benzene at 940 $\mu\text{g/L}$. A grab groundwater sample collected from boring B-5 (40 feet northeast of the UST excavation) indicated concentrations of TPHg at 1,900 $\mu\text{g/L}$, MTBE at 41 $\mu\text{g/L}$, and benzene at 160 $\mu\text{g/L}$. Quarterly groundwater monitoring and sampling of the monitoring wells was performed through the remainder of 1997 and continued through 1998. As the site was considered a low priority by the North Coast Regional Water Quality Control Board (NCRWQCB), no direction for additional quarterly monitoring was provided. Subsequently, no quarterly monitoring was performed in 1999. At the direction of Dean Prat of the NCRWQCB quarterly groundwater monitoring was resumed in January 2000. Well construction, cumulative investigative and quarterly groundwater monitoring data are presented in Tables 1 through 4.

On May 4, 2000, in an effort to better evaluate groundwater flow characteristics at the site, Clearwater supervised Diamond Core Drilling of Redding, California in the installation of two additional monitoring wells (MW-5 and MW-6) to the north and east of the former excavation. Well installation activities were approved verbally by Mr. Dean Pratt of the NCRWQCB. Results of this investigation are presented in Clearwater's *Monitoring Well Installation and Groundwater Monitoring Report Second Quarter 2000* dated July 18, 2000.

On March 4 and 5, 2002, Clearwater supervised the drilling four soil borings to a depth of approximately 60 feet bgs (Figure 2). The purpose of the proposed additional investigation was

to provide the data needed for the preparation of the required Corrective Action Plan (CAP). Results of this investigation are presented in Clearwater's *Corrective Action Plan (CAP) / Sensitive Receptor Survey / Additional Investigation Report* dated April 26, 2002. In a letter dated June 4, 2002, the NCRWQCB approved the CAP which outlined soil vapor extraction (SVE) as the preferred remedial alternative to treat sorbed-phase contamination and monitored natural attenuation for treating dissolved-phase contamination and requested the submittal of a workplan to perform an SVE pilot study.

Clearwater subsequently prepared and submitted a *Workplan for Vapor Extraction Pilot Study* dated August 10, 2002. The workplan was approved in a NCRWQCB letter dated September 9, 2002. The pilot study was performed in October 2002. The results of the monitored natural attenuation study were favorable; however, the results of the SVE test were not favorable. Therefore, low vacuum SVE was not considered to be a technically viable remedial alternative. Results of the pilot study and natural attenuation feasibility study were submitted in Clearwater's *Second Quarter 2003 and Remedial Action Plan* dated July 21, 2003.

In a letter dated September 25, 2003, the NCRWQCB concurred with Clearwater's evaluation of the monitoring data and recommendation to continue natural attenuation monitoring for a one year period. In the letter, the NCRWQCB requested a summary report be submitted following a one year period and should include an estimate of time for natural attenuation to restore beneficial uses of groundwater at the site and the evaluation of at least one additional remedial alternative and a cost comparison of the remedial alternatives.

In May 2004, Blue Rock was retained to continue site activities. Blue Rock performed the Second Quarter 2004 groundwater monitoring event and subsequently submitted the *Remedial Action Plan Addendum / Summary Report / Second Quarter 2004 Groundwater Monitoring Report* dated July 20, 2004 which conveyed the data requested in the September 25, 2003, NCRWQCB letter and requested the site be evaluated for closure. The NCRWQCB denied the closure request in a letter dated September 8, 2004 and requested groundwater monitoring be performed on a semi annual basis.

In the *Remedial Action Plan Addendum*, dated July 20, 2004, Blue Rock identified High-Vacuum Dual-Phase Extraction (HDPE) as the most promising remedial technology for the subsurface conditions, but concluded that the cost of a full-scale HDPE system installation and operation did not appear to be justified in light of the limited contaminant mass present (i.e. ~122 lbs. of TPHg in soil) and the documented natural attenuation of contaminants. Since that time, current investigation and monitoring data has suggested that natural attenuation alone may not result in timely achievement of groundwater quality goals, yet the estimated residual contaminant mass still did not appear to warrant the cost for installation of a full-scale HDPE remedial system. Therefore, Blue Rock recommended performing a temporary "hot-spot" remediation using a Mobile HDPE rig in an effort bring dissolved-phase concentrations near groundwater quality goals for future site closure.

DPE Treatment Event

Blue Rock completed a DPE treatment event on monitoring well MW-1 during the week of October 31 to November 4, 2005. During the DPE test, a total of 8 samples were collected for laboratory analysis: 5 process air samples, 1 process water samples and 2 water samples (pre and post treatment) from MW-1. DPE test equipment, methodology, and test results are further described below.

Purpose of DPE Treatment

Since 2002, gasoline hydrocarbons continue to impact groundwater in the vicinity of the former USTs and MW-1. Evaluation of natural attenuation processes shows that although groundwater contaminants are declining at predictable rates, they may not meet clean-up goals on their own in a timely fashion (i.e. 5 years or more).

Blue Rock proposed completion of "hot-spot" treatment with mobile HDPE unit to augment ongoing natural attenuation. The goal of "hot-spot" treatment is to further reduce the limited residual contaminant mass, in order to accelerate the reduction of contaminant concentrations and hasten regulatory closure of the site.

Air Permits

Because of the limited duration of the treatment event and because air treatment equipment is utilized to abate emissions, extraction events lasting 5 days or less are typically below the permitting threshold, thus, no air permit was necessary for this event.

Water Discharge Permits/Water Disposal

A total of approximately 1,800 gallons of water was produced by the DPE treatment event. Water discharge permits were not necessary because no water was discharged. Test produced water was contained onsite in a large poly tank and was subsequently transported to Seaport Environmental in Redwood City, California for disposal.

DPE Equipment

A mobile high-vacuum DPE unit was mobilized to the site. The truck mounted unit consisted of a 25-horsepower liquid-ring pump capable of producing 29 inches of mercury ("Hg) vacuum, and a thermal oxidizer capable of treating an air flow of 150 cfm. An onboard 45-kilowatt electric generator powered the equipment and a propane tank provided supplemental fuel for the thermal oxidizer. A unit intake hose was connected to the test extraction well through a vacuum cap attached to the wellhead. A flow sensor measured process air stream volumetric flow and a flow totalizer recorded gallons of water pumped. A schematic of DPE pilot testing equipment is presented in Figure 7.

DPE Test Procedures

Monitoring well MW-1 was utilized as the extraction well because previous monitoring data consistently indicates that it is the most impacted well. MW-1 is screened from 20 feet to 40 feet below grade.

Surrounding nearby monitoring wells MW-2, MW-3 and MW-5 were utilized as observation wells during the DPE treatment event. The observation wells are screened from 20 feet to 40 feet below grade.

Prior to testing, static depth to water and vacuum measurements were collected from the test and observation wells. Before testing, groundwater was measured at 25.67 feet below top of casing in MW-1.

During DPE treatment, test well MW-1 was utilized as the extraction well while the surrounding monitoring wells, were utilized for influence monitoring. The DPE intake hose was lowered through a port in an otherwise airtight expansion plug at the top of the well MW-1. The hose intake was set at approximately 30 feet bgs, for the first 2 hours of the test, and at approximately 39 feet bgs for the remainder of the test. MW-1 could not be further dewatered beyond 40 feet deep, the completed depth of the well. Surrounding monitoring wells were checked for vacuum influence using vacuum gauges. To monitor hydraulic influence, periodic depth to water measurements were also conducted on surrounding monitoring wells.

Dual-Phase Extraction Rates

Water and vapor (dual phases) were extracted from test well MW-1 by high vacuum applied with a liquid-ring pump. Pump vacuums of 24.8, and 25.0 "Hg column were applied to well MW-1. Under these pump vacuums MW-1 produced, respectively, water pumping rates of 0.31 and 0.16 gallons per minute (gpm), and well air flow rates of 78 and 73 standard cubic feet per minute (scfm) (Table 5).

Hydraulic Influence

Data produced from traditional aquifer testing (pump testing), is better suited for capture zone calculations. Data from short-term DPE treatment are typically insufficient to estimate a hydraulic capture zone, although can demonstrate hydraulic influence.

During the application of a sustained vacuum on MW-1, water level decreases on the order of hundredths of a foot were observed in the monitoring wells MW-2 and MW-3 (Table 1). However, based on the data collected, decreases in water levels of several hundredths of a foot in monitoring wells MW-2 and MW-3 were not consistent and not considered significant during the test. As demonstrated by the drawdown data shown in Table 5, depth to water in the observation wells actually increased slightly in response to the applied vacuum on MW-1 at times during the event.

Vacuum Radius of Influence (under DPE treatment conditions)

Significant induced vacuums, vacuums greater than 0.1" H₂O column, were not observed in observation well MW-5 at any vacuum step applied to test well MW-1. However, this observation well is also located the greatest distance away from MW-1 (~125 ft), which perhaps was outside the radius of influence (ROI) of the test well. However, MW-3 the second closest observation well, located approximately 100 feet from the test well, displayed significant induced vacuum of up to 2.4" H₂O column. MW-2, although closer, had a maximum induced

vacuum of 0.41" H₂O column. This may be due to the fact that the formerly excavated area lies in between MW-3 and MW-1 and the fill material within the former excavation cavity is less dense than surrounding undisturbed native soils. Based on these results, and similar tests done under similar conditions, the vacuum ROI of MW-1 is estimated to be approximately 125 feet under high-vacuum conditions (Figure 6) and appears to be uneven and skewed towards MW-3. A previous SVE test conducted on MW-1 resulted in the lack of a measurable ROI. Vacuum ROIs are typically greater for DPE compared with SVE, due to the much higher vacuums applied by DPE units.

Water and Air Sampling

Following a three casing volume purge completed prior to sampling, Blue Rock staff collected pre-test and post-test water samples directly from treatment well MW-1 using disposable sampling bailers. The water sample collected prior to the initiation of the treatment event on October 31, 2005 is considered the pre-test water sample. A post-test water sample was collected from MW-1 on November 4, 2005 following completion of the five day DPE treatment.

During the actual DPE test, a total of 6 samples were collected for laboratory analysis: 1 process water sample and 5 process air samples. Water samples were collected into preserved 40-ml VOA bottles and air samples were collected into 1-liter tedlar bags. All samples collected were labeled, documented on a chain-of-custody form, and shipped to Kiff Analytical (Kiff), a state-certified environmental laboratory located in Davis, California. Kiff analyzed all samples for TPHg, BTEX, and MTBE by EPA Method 8260B.

The 1 process water sample collected during the DPE test was considered a mid-fluent water sample because the extracted water had already been partially treated at the point in the DPE process where they are collected (Figure 7). Partial treatment is the result of the increased surface area and agitation of the entrained water as it passes through the system hosing and water knockout. This creates volatilization of contaminants from the water stream, which is also enhanced by the vacuum of the system.

Water and Air Sample Results

Concentrations of benzene, MTBE and TPHg were detected in the pre- and post- test water samples collected from MW-1. The post-test water sample collected from MW-1 was lower in concentrations of target analytes than the pre-test water sample, however, was within the lower range of MTBE concentrations reported for past samplings of this well. The pre-treatment concentrations of benzene, MTBE and TPHg were 5.8 µg/L, 240 µg/L and 760 µg/L respectively. The post-treatment concentrations were somewhat lower at 1.6 µg/L, 210 µg/L and 260 µg/L respectively (Table 6).

The DPE system mid-fluent sample contained MTBE and TPHg at concentrations of 28 and 250 µg/L, respectively. Low xylene concentrations were also detected in the mid-fluent water sample.

Process influent air sample TPHg concentrations ranged from 170 parts per molar volume (ppmv) to 32 ppmv and MTBE concentrations ranged from 0.5 to 1.6 ppmv (Table 7). In general, TPHg contaminant concentrations in the process air stream decreased as treatment proceeded, while MTBE concentrations in the process air stream increased as treatment proceeded.

TPHg and MTBE Extraction Rates

Based on discrete water sample data and water pumping rates, TPHg removal rates ranging from approximately 0.002 to 0.001 pounds per day (lbs/day), and MTBE removal rates ranging from approximately 0.004 to 0.001 lbs/day were achieved from the liquid phase extracted from MW-1 (Tables 8 and 9).

Based on a evaluation of discrete air sample data and process air flow rates, TPHg removal rates ranging from 4.2 to 0.7 lbs/day, and MTBE removal rates ranging from 0.03 to 0.01 lbs/day were achieved from the vapor phase extracted from MW-1 (Tables 8 and 9, Figures 8 and 9).

Conclusions and Recommendations

Conclusions

The DPE treatment was successful in demonstrating that TPHg, BTEX, and MTBE can be removed from the subsurface using this technology. TPHg removal rates ranging from 4.2 to 0.7 lbs/day, and MTBE removal rates ranging from 0.03 to 0.01 lbs/day were achieved from the vapor phase extracted from MW-1. Based on the data collected, approximately 10 lbs. of sorbed-phase gasoline range hydrocarbons were removed from the subsurface during the five day DPE treatment. As is typical, mass was more effectively extracted in vapor phase rather than in liquid phase.

The DPE treatment appears to have been successful at lowering concentrations of target analytes at the extraction point based on the results of the pre treatment and post treatment samples collected from MW-1.

The high-vacuum unit used in this DPE treatment event produced a greater vacuum radius of influence, compared to the ROI of the previous SVE test. A greater ROI means a greater lateral reach of a given extraction well with regards to effecting a cleanup. Greater well air flow rates and TPHg/MTBE mass removal rates were also achieved in the DPE treatment in comparison with the previous SVE test.

The DPE unit also demonstrated the ability to address contamination below water table, as the test well, which began with approximately a 15-foot water column, was easily dewatered at maximum pumping rate of approximately 0.3 gpm (equivalent to approximately 432 gallons per day). A capture zone was not calculated for this study. However, some water level decreases were measured in surrounding observation wells, indicating a cone of depression forming around the test well under (vacuum) pumping conditions. This may indicate some hydraulic control of the plume is possibly created by the vacuum pumping/dewatering of the treatment well. The

general depression of the water table under pumping conditions also effectively increases the vadose zone, which in turn may be remediated by the vapor removal part of the DPE process.

Recommendations

Based on the data collected during this DPE treatment event, Blue Rock recommends the following.

- The groundwater monitoring program should be changed from semi-annual to quarterly to better track trends in the magnitude and extent of the residual dissolved-phase plume following the DPE treatment. The next quarterly groundwater monitoring event is scheduled for December 2005.
- If continued quarterly groundwater monitoring demonstrates that the DPE treatment was effective in allowing natural attenuation processes to reduce concentrations of target analytes to water quality goals within a reasonable time frame, then the site should be reevaluated for no further action after at maximum one additional year of quarterly monitoring.
- If continued quarterly groundwater monitoring demonstrates that the rate of natural attenuation continues to be insufficient to warrant a no further action determination, then the site should be evaluated for the implementation of additional DPE extraction events.

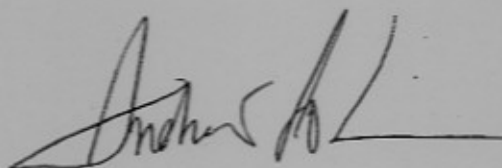
Certification

This report was prepared under the supervision of a California Professional Geologist at Blue Rock. All statements, conclusions, and recommendations are based upon published results from past consultants, field observations by Blue Rock, and analyses performed by a state-certified laboratory as they relate to the time, location, and depth of points sampled by Blue Rock. Interpretation of data, including spatial distribution and temporal trends, are based on commonly used geologic and scientific principles. It is possible that interpretations, conclusions, and recommendations presented in this report may change, as additional data become available and/or regulations change.

Information and interpretation presented herein are for the sole use of the client and regulating agency. The information and interpretation contained in this document should not be relied upon by a third party.

The service performed by Blue Rock has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

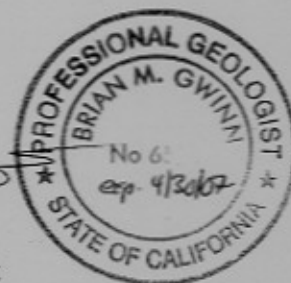
Sincerely,
Blue Rock Environmental



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Project Manager



Brian Gwinn, P.G.
Principal Geologist



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List of Attachments

Figures

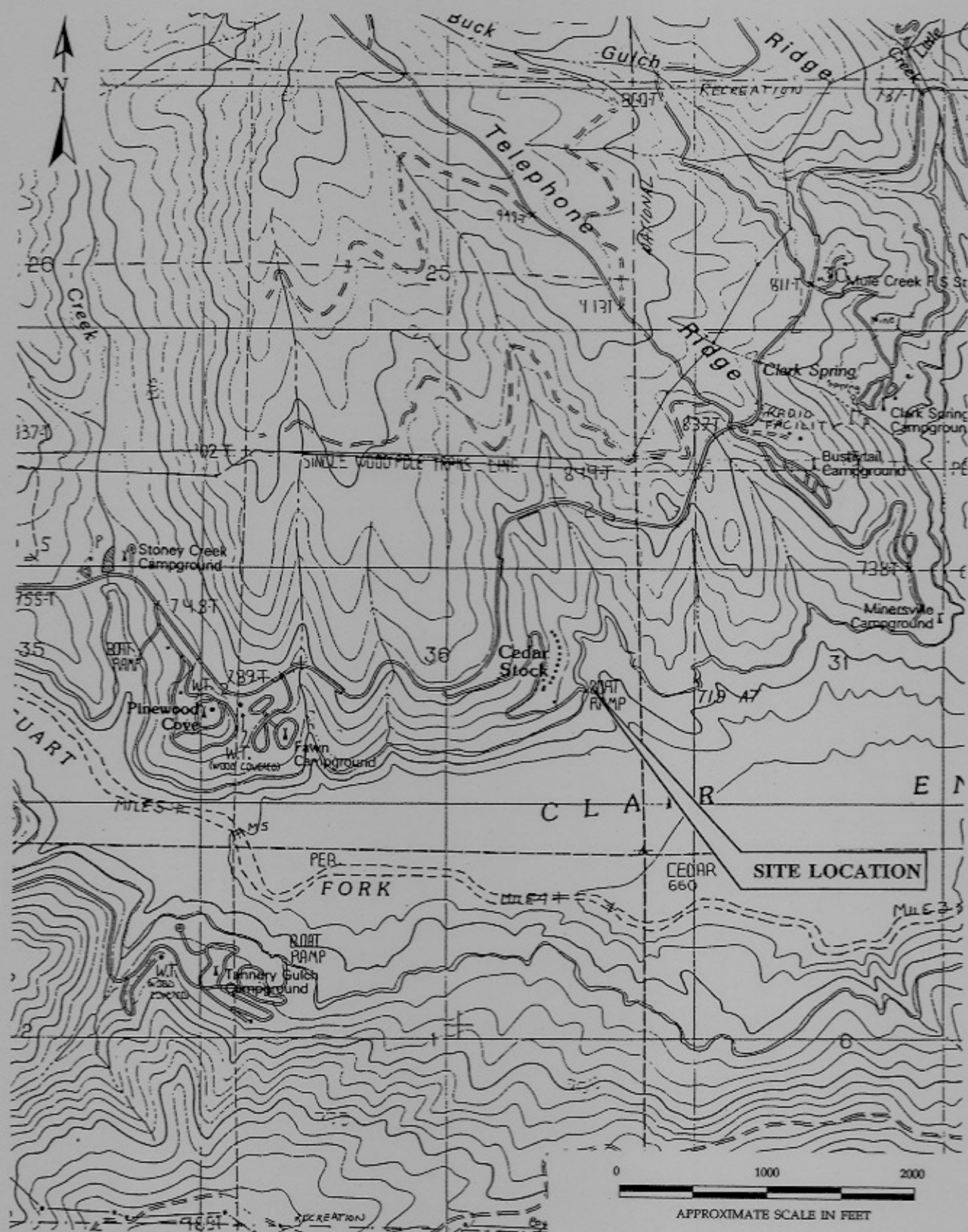
1. Site Location Map
2. Site Plan
- 2a. Cross Section A to A'
- 2b. Cross Section A to A'
3. Dissolved-Phase TPHg Distribution June 23, 2005
4. Dissolved-Phase MTBE Distribution June 23, 2005
5. Sorbed-phase Hydrocarbon Distribution
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7. High Vacuum DPE Treatment Equipment Schematic
8. TPHg Vapor Removal Rates
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1. Monitoring Well Construction Data
2. Historic Analytical Data Tank Removal and Excavation
3. Soil Boring Analytical Data
4. Groundwater Elevation and Analytical Data
5. DPE Test Data
6. Water Sample Analytical Results
7. Air Sample Analytical Results
8. TPHg Extraction Rates
9. MTBE Extraction Rates

Appendix

- A. Certified Analytical Reports (water samples)
- B. Certified Analytical Reports (air samples)
- C. Sorbed Phase Mass Calculation (pre treatment)



Site Location Map

Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA

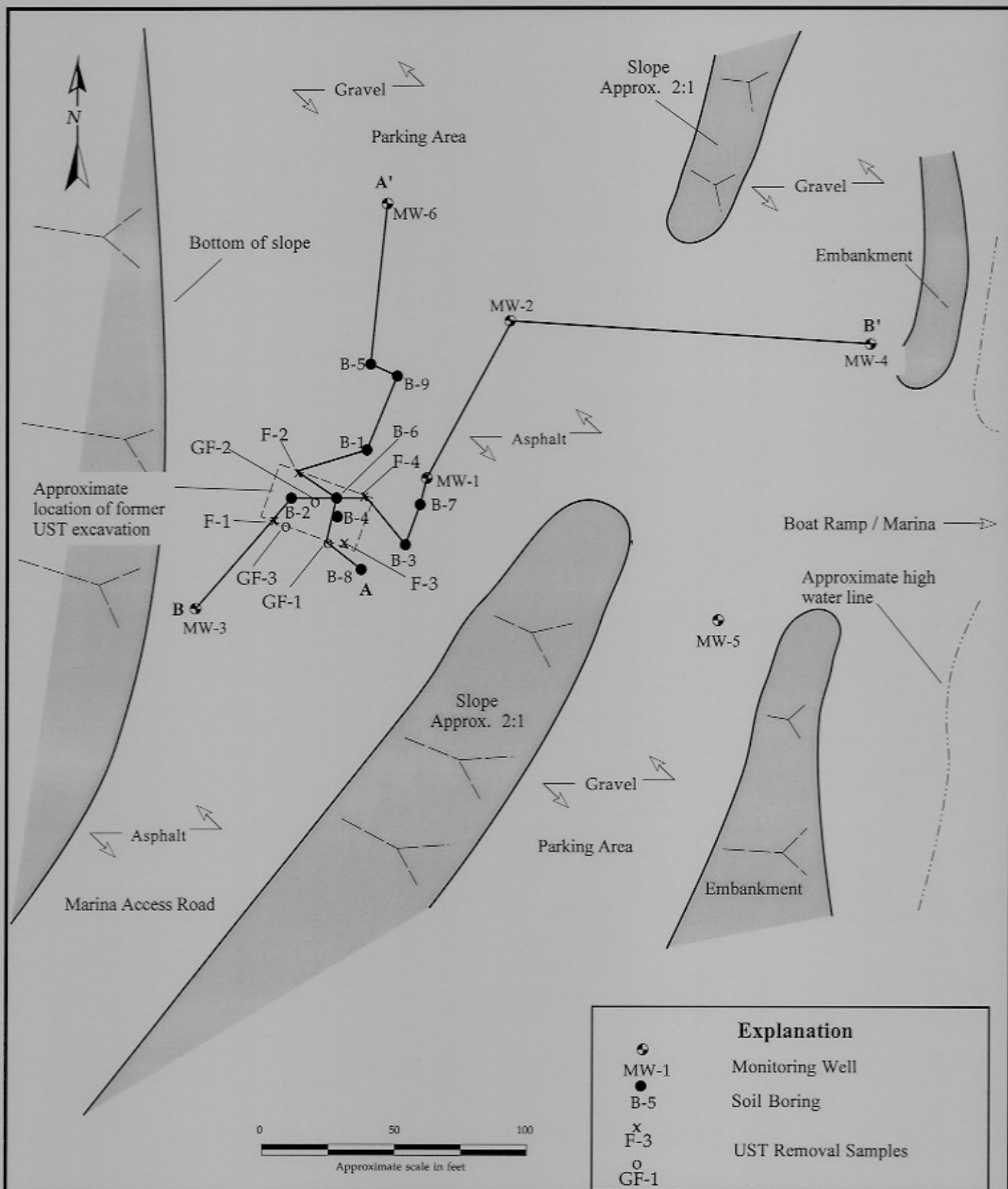


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Figure
1



Explanation	
	MW-1 Monitoring Well
	B-5 Soil Boring
	F-3 UST Removal Samples
	GF-1

Site Plan

Cedar Stock Resort
45810 State Highway 3
Trinity Center, California



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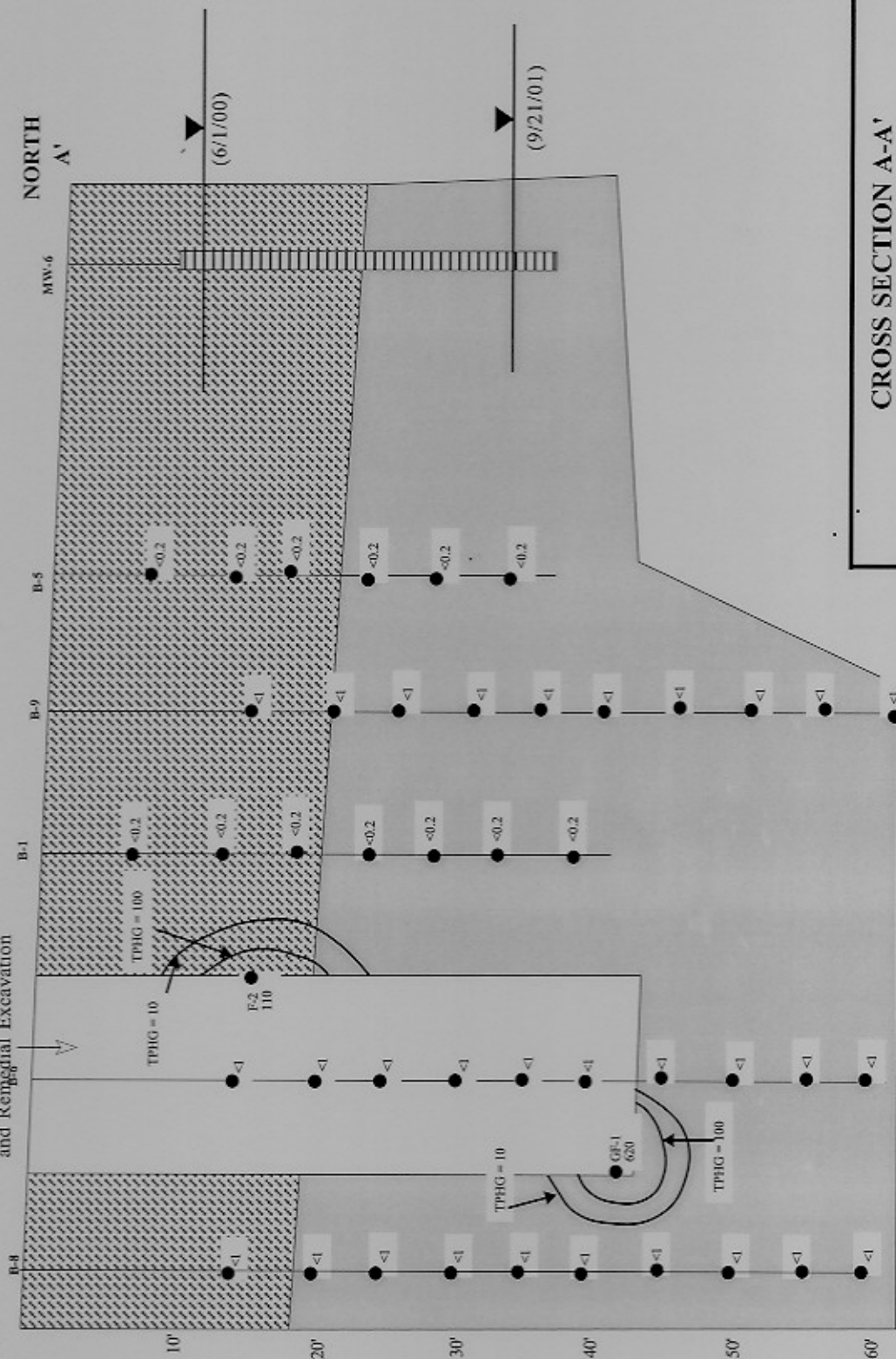
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Figure
2

SOUTH
A

Former UST Locations
and Remedial Excavation



EXPLANATION

- Clayey Sand(SC)
- Sandy Clay (CL)
- UST PIT BACKFILL (CL & SC)
- HIGH / LOW WATER TABLE ELEVATION
- MW-8 BORING/WELL I.D.
- LOGGED & SCREENED INTERVAL
- SOIL SAMPLE COLLECTED DURING DRILLING
- TPH_g CONCENTRATION (mg/kg) SOIL SAMPLES
- <1
- 9/21/01

APPROXIMATE SCALE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: As Shown

DIFFERENCE IN SURFACE ELEVATIONS ARE APPROXIMATE

CROSS SECTION A-A'

Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA

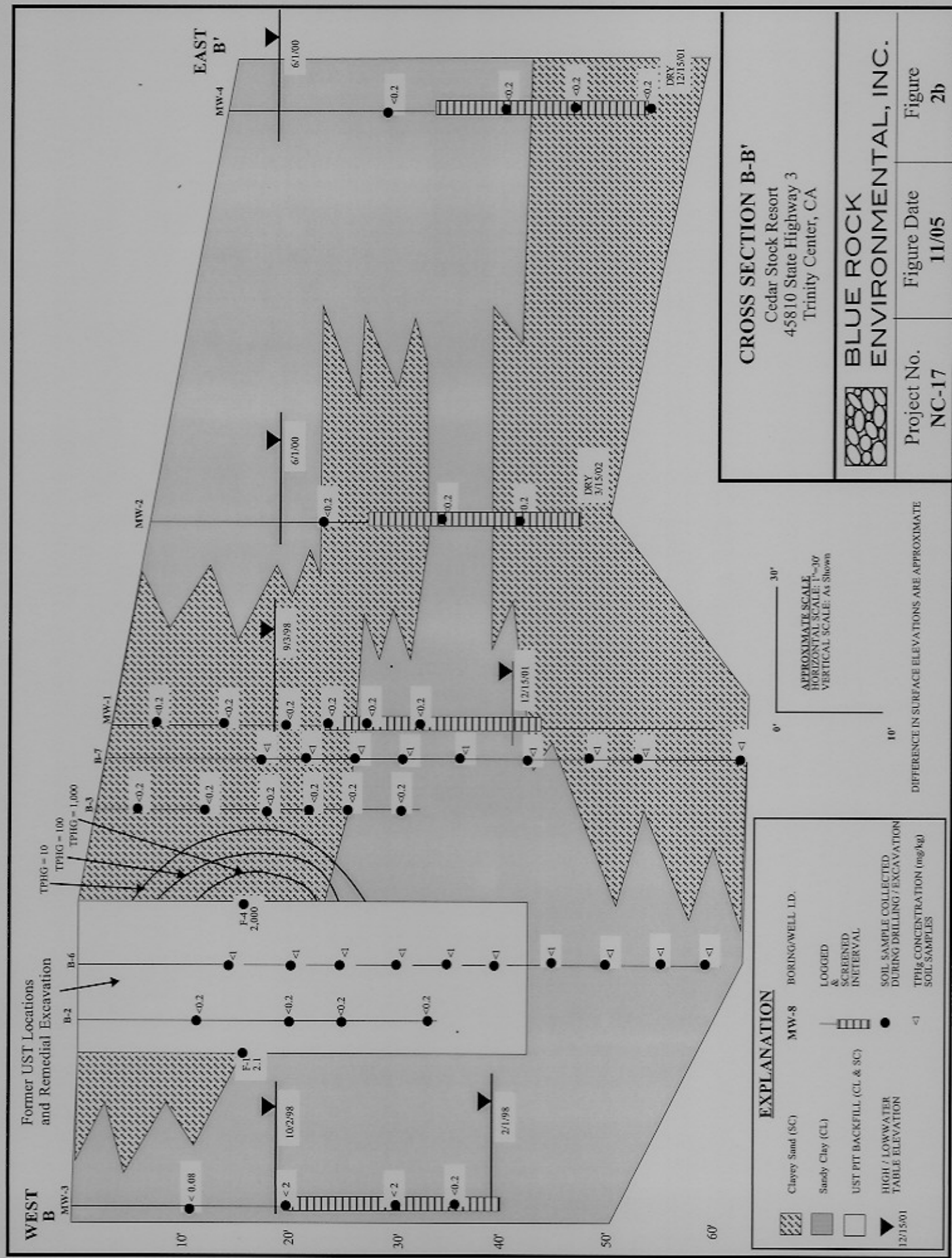


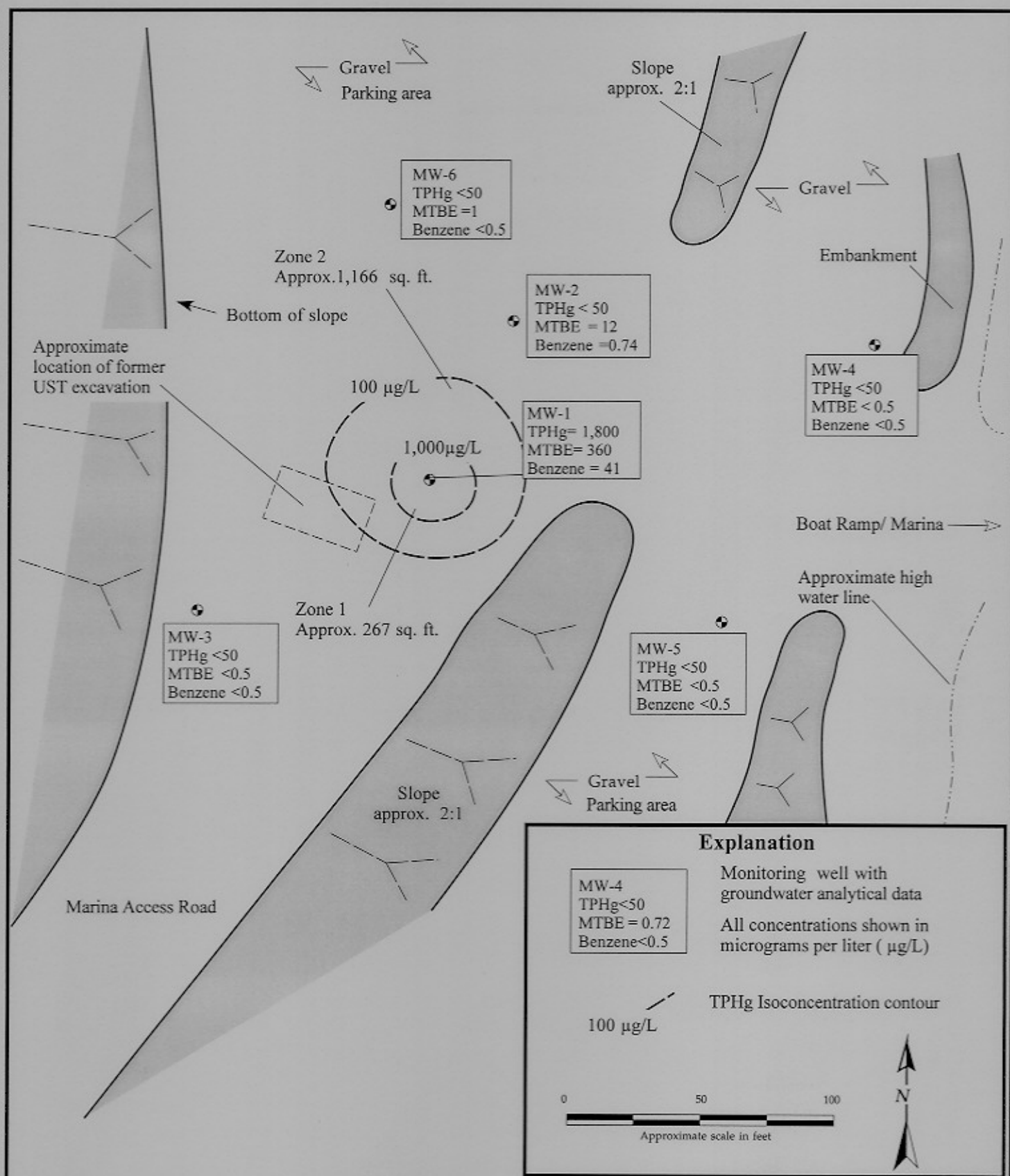
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Figure Date
11/05

Figure
2a

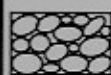




Dissolved-Phase TPHg Distribution

June 23, 2005

Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA

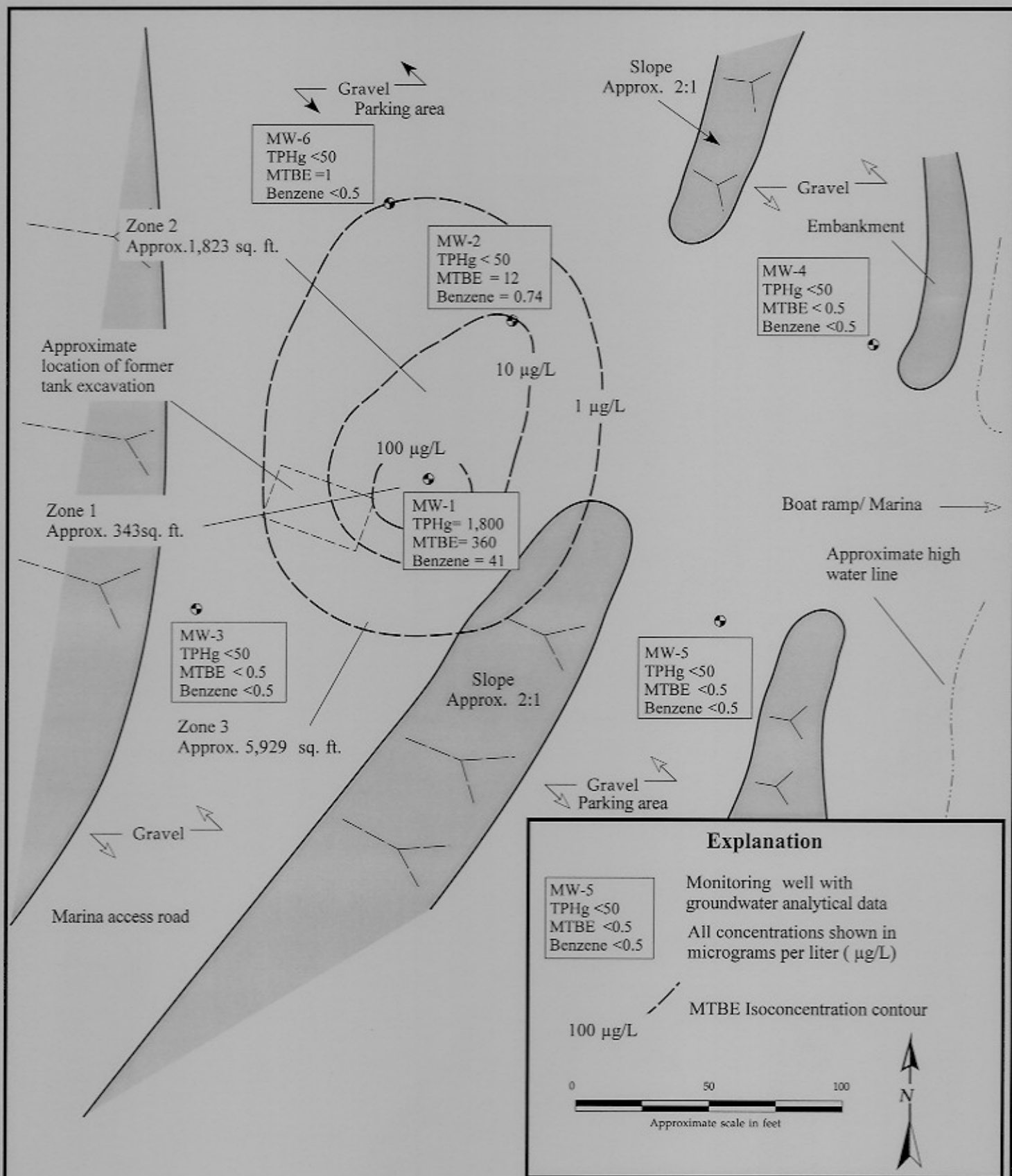


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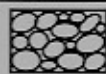
Figure
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Dissolved-Phase MTBE Distribution

June 23, 2005

Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA

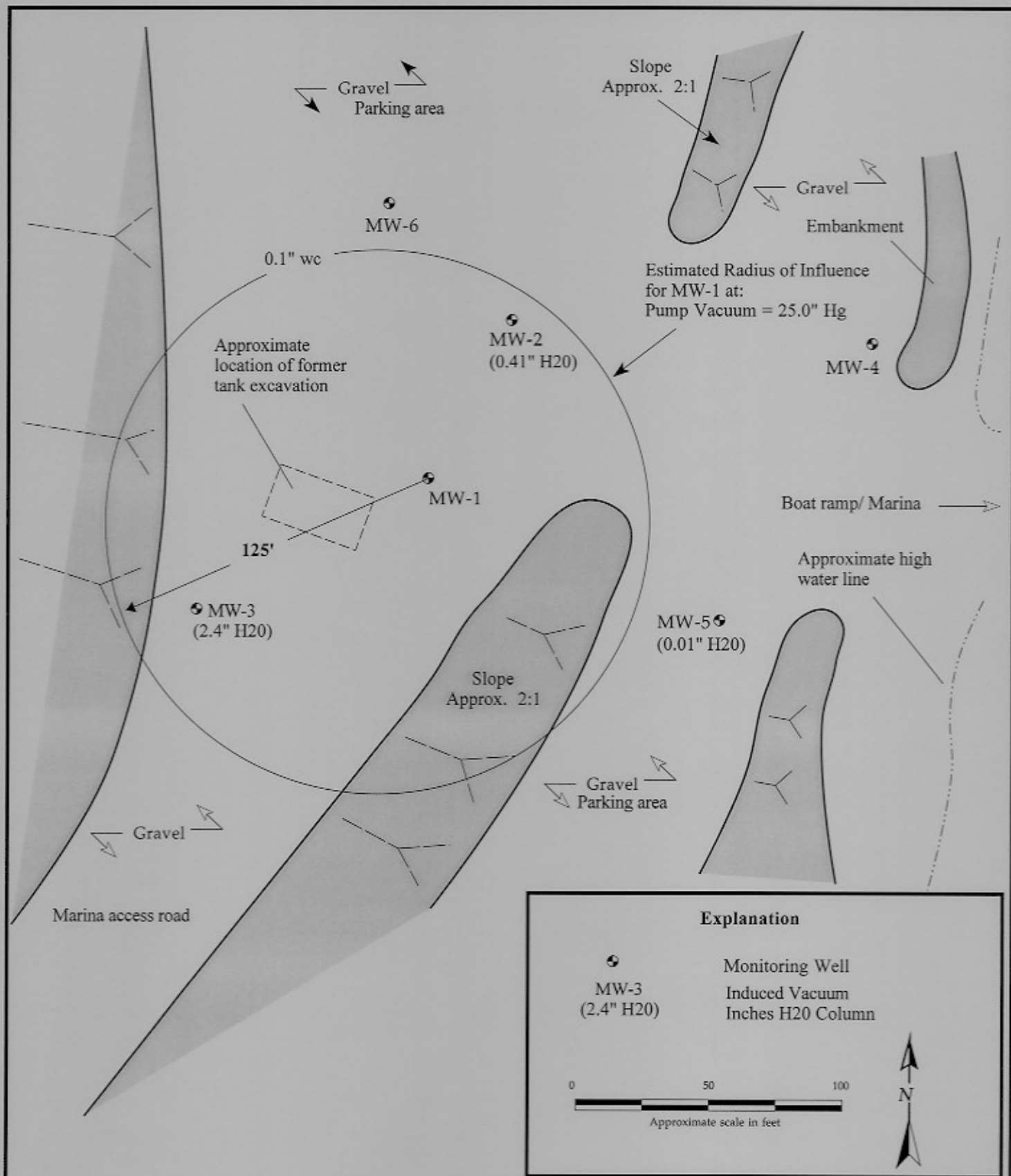


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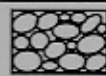
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Figure
4



Maximum Radius of Influence - DPE Treatment MW-1

Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA

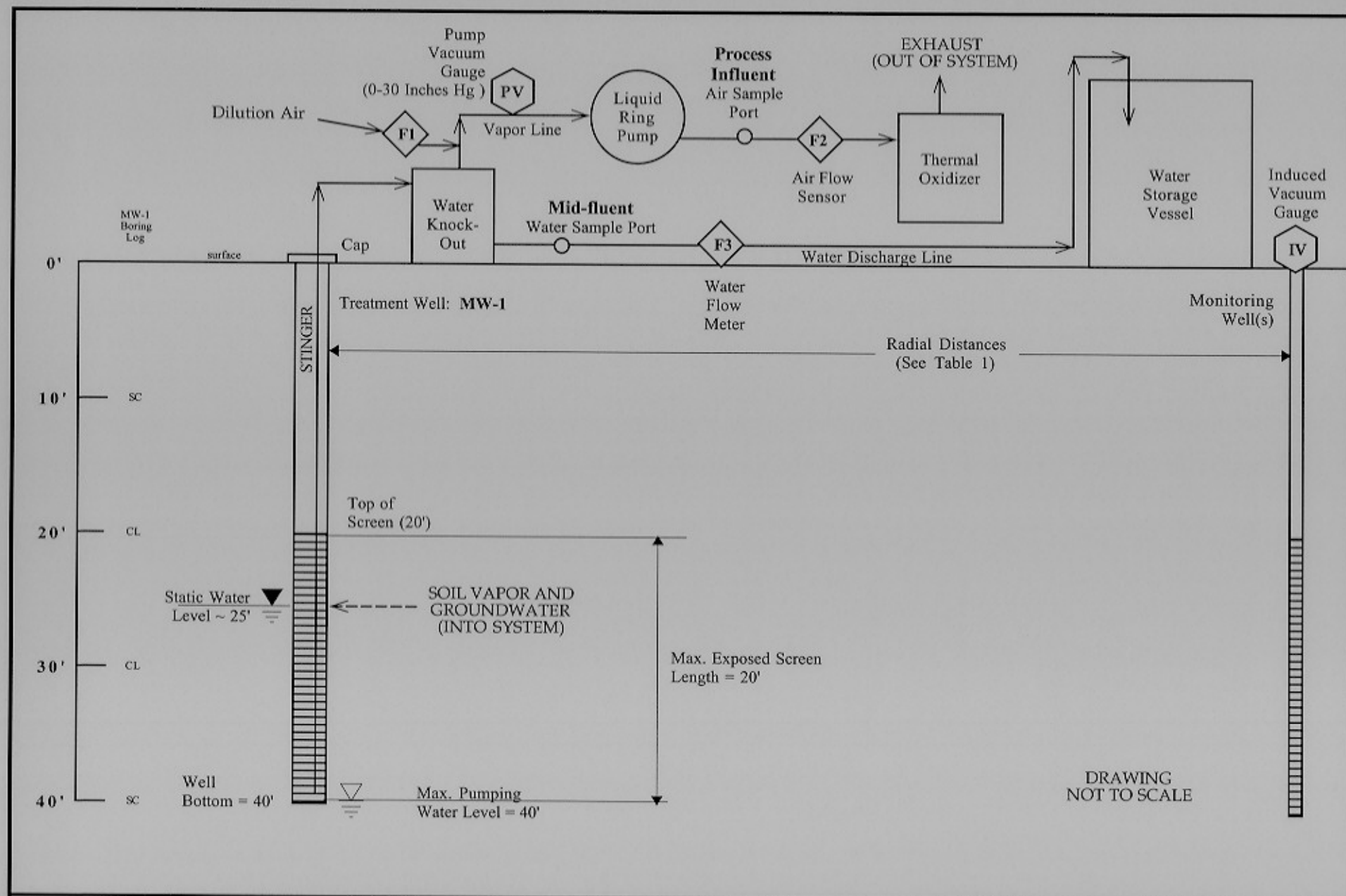


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Figure
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(HIGH VACUUM) DUAL-PHASE EXTRACTION TREATMENT EQUIPMENT SCHEMATIC

Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA



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Figure
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Figure 8: TPHg Removal Rates From DPE Treatment of Monitoring Well MW-1
(based on discrete air sample analytical and flow monitoring data)
Cedar Stock Resort, Trinity Center, CA

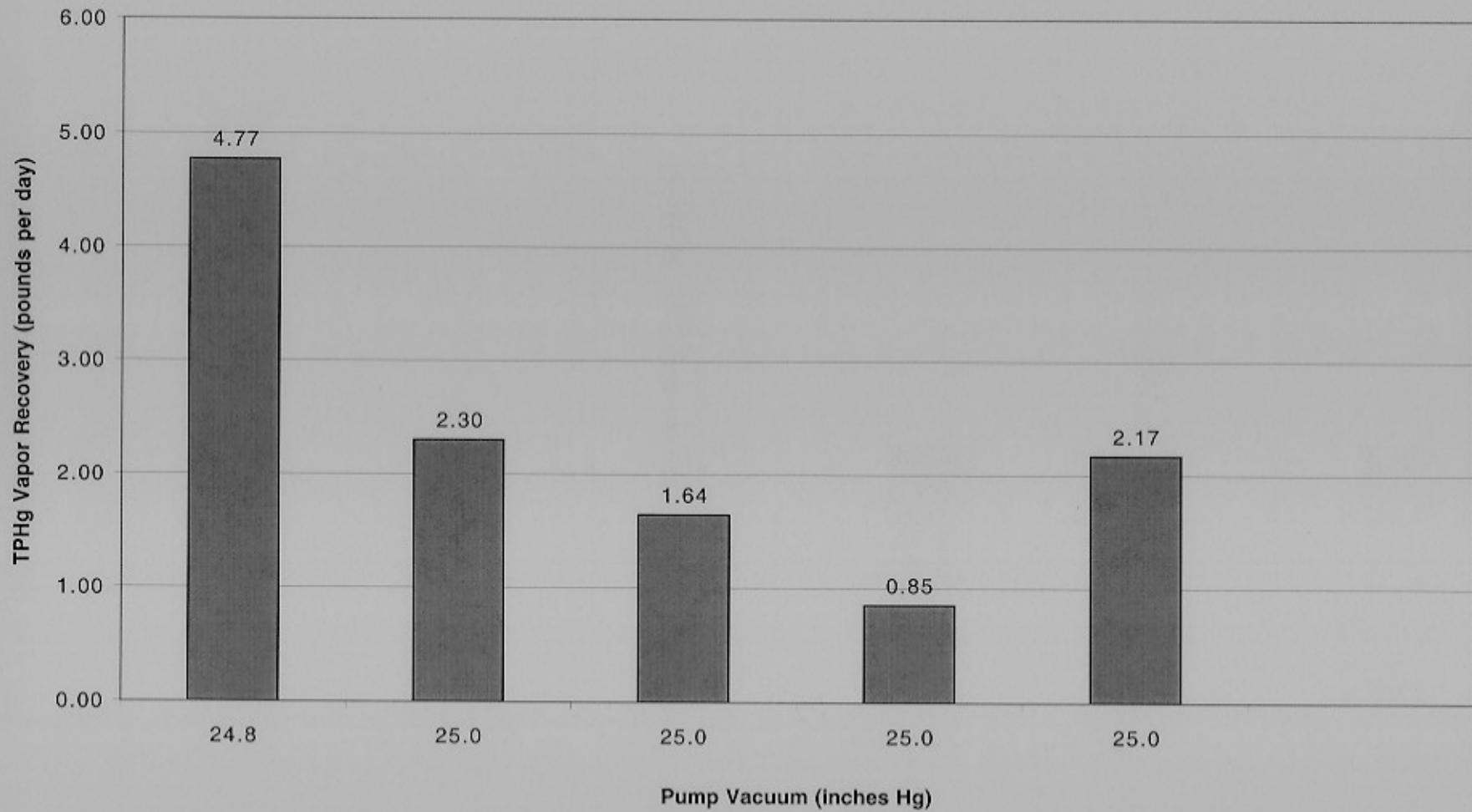


Figure 9: MTBE Removal Rates From DPE Treatment of Monitoring Well MW-1
 (based on discrete air sample analytical and flow monitoring data)
 Cedar Stock Resort, Trinity Center, CA

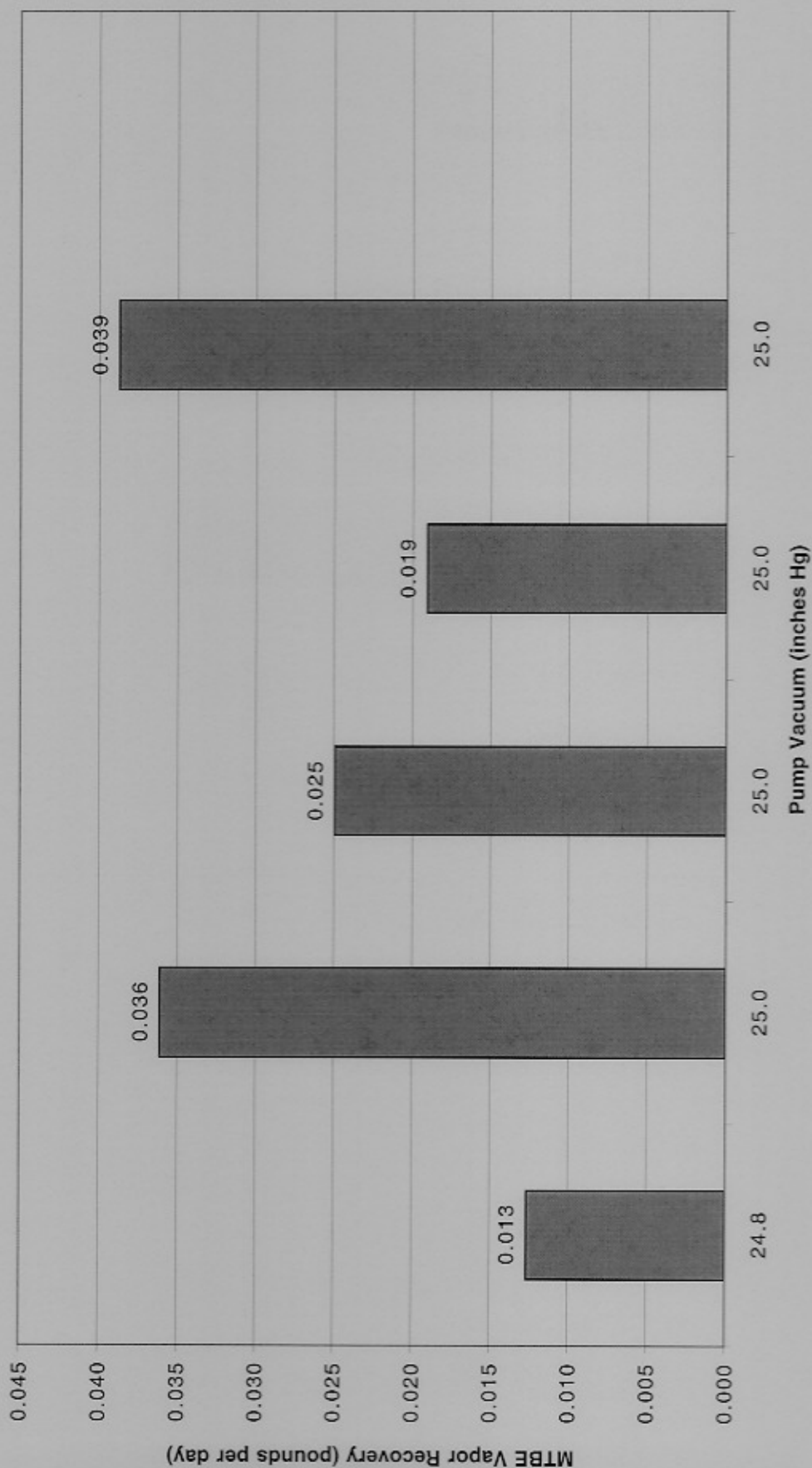


Table 1
WELL CONSTRUCTION DATA
Cadair Stock Resort
45180 State Highway 3
Trinity Center, California
Project No. NC-017

Well Identification	Date Installed	Installed by	Casing Diameter (Inches)	Total Depth (feet)	Blank Interval (feet)	Screened Interval (feet)	Slot Size (Inches)	Filter Pack (feet)	Bentonite Seal (feet)	Cement (feet)
MW-1	11/18/97	Clearwater	2	40	0-20	20-40	0.02	18-40	16-18	0-16
MW-2	11/18/97	Clearwater	2	40	0-20	20-40	0.02	18-40	16-18	0-16
MW-3	11/18/97	Clearwater	2	40	0-20	20-40	0.02	18-40	16-18	0-16
MW-4	11/18/97	Clearwater	2	40	0-20	20-40	0.02	18-40	16-18	0-16
MW-5	8/30/00	Clearwater	2	35	0-15	15-35	0.02	14-35	12-14	0-12
MW-6	8/30/00	Clearwater	2	35	0-15	15-35	0.02	14-35	12-14	0-12

Table 2
HISTORIC ANALYTICAL DATA
TANK REMOVAL AND EXCAVATION

Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA
Project No. NC-017

Soil

Sample Name	Sampling Date	Sample Location	Sample Depth	TPH _g (ppm)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
F-1	9/20/94	South west side of Exc.	16'	2.1	<5.0	16	56	51
F-2	9/20/94	North West side of Exc.	16'	110	<5.0	150	520	4,600
F-3	9/20/94	South East side of Exc.	16'	<1.0	<5.0	<5.0	<5.0	<10
F-4	9/20/94	North East side of Exc.	16'	2,000	6,600	68,000	21,000	132,000
C-1 Composite	9/20/94	Stockpile	n/a	110	<25	150	260	2,750
GF-1	11/1/94	South East side of Exc.	42'	620	390	8,900	5,200	35,000
GF-2	11/1/94	Center of Exc.	32'	31	14	49	74	640
GF-3	11/1/94	South West side of Exc.	24'	30	<10	89	91	860
Composite A	3/30/95	Stockpile	n/a	0.11	<2.5	<2.5	<2.5	<5.0
Composite B	3/30/95	Stockpile	n/a	0.84	<0.5	<0.5	<0.5	<1.0
Composite C	3/30/95	Stockpile	n/a	<0.05	<0.5	<0.5	<0.5	<1.0
Composite D	3/30/95	Stockpile	n/a	0.11	<0.5	<0.5	<0.5	23
Composite E	3/30/95	Stockpile	n/a	<0.05	<0.5	<0.5	<0.5	<1.0

TPH_g: Total petroleum hydrocarbons as gasoline

B: Benzene

T: Toluene

E: Ethylbenzene

X: Xylenes (total)

ppb: parts per billion = $\mu\text{g/l} = \mu\text{g/kg} = 0.001 \text{ ppm}$

ppm: parts per million = $\text{mg/kg} = \mu\text{g/g} = \text{mg/l} = 1000 \text{ ppb}$

ND: Not detected at or below the method detection limit as shown.

n/a: not applicable

Table 3
SOIL BORING
ANALYTICAL DATA
Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA
Project No. NC-017

Sample Name	Sample Depth	Sample Date	TPHg (mg/kg)	MTBE (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Methanol (mg/kg)	Ethanol (mg/kg)
Soil														
B-1	5.5'	12/2/96	<0.2	<50	14	<5	<5	6	-	-	-	-	-	-
B-1	11.0'	12/2/96	<0.2	<50	7	<5	<5	<5	-	-	-	-	-	-
B-1	16.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-1	21.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-1	26.0'	12/2/96	<0.2	<50	62	<5	<5	<5	-	-	-	-	-	-
B-1	31.0'	12/2/96	<0.2	160	57	<5	<5	7	-	-	-	-	-	-
B-1	36.0'	12/2/96	<0.2	<50	21	<5	<5	<5	-	-	-	-	-	-
B-2	11.0'	12/2/96	<0.2	200	51	29	5	14	-	-	-	-	-	-
B-2	21.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-2	26.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-2	31.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-2	36.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-3	6.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-3	11.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-3	16.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-3	21.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-3	26.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-3	31.0'	12/2/96	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-5	6.0'	11/17/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-5	11.0'	11/17/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-5	15.5'	11/17/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-5	20.5'	11/17/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-5	26.5'	11/17/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-5	30.5'	11/17/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-

Table 3
SOIL BORING
ANALYTICAL DATA
Cedar Stock Resort
45810 State Highway 3
Trinity Center, CA
Project No. NC-017

Sample Name	Sample Depth	Sample Date	TPH _g (mg/kg)	MTBE (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Methanol (mg/kg)	Ethanol (mg/kg)
MW-1	6.0'	11/17/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-1	11.0'	11/17/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-1	16.0'	11/17/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-1	20.5'	11/17/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-1	26.0'	11/17/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-1	31.0'	11/17/97	<0.2	50	12	<5	<5	<5	-	-	-	-	-	-
MW-2	16.0'	11/18/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-2	26.0'	11/18/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-2	36.0'	11/18/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-3	11.0'	11/18/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-3	20.5'	11/18/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-3	30.5'	11/18/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-4	16.0'	11/18/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-4	26.0'	11/18/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
MW-4	46.0'	11/18/97	<0.2	<50	<5	<5	<5	<5	-	-	-	-	-	-
B-6	15.0'	3/4/02	<1	0.012	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0056	<0.2	<0.01
B-6	20.0'	3/4/02	<1	0.029	0.034	0.014	0.0089	0.061	<0.005	<0.005	<0.005	<0.0025	<1	<0.05
B-6	25.0'	3/4/02	<1	0.22	0.26	<0.005	<0.005	0.015	<0.005	<0.005	<0.005	0.033	<1	<0.05
B-6	30.0'	3/4/02	<1	0.083	0.023	<0.005	<0.005	0.023	<0.005	<0.005	<0.005	0.011	<0.2	<0.02
B-6	35.0'	3/4/02	<1	0.015	0.035	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-6	40.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-6	45.0'	3/4/02	<1	0.012	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0095	<0.2	<0.01
B-6	50.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-6	55.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-6	60.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-7	15.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-7	20.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-7	25.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-7	30.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-7	35.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	0.015
B-7	40.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-7	45.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-7	50.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-7	60.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01

Table 3
SOIL BORING
ANALYTICAL DATA
Cedar Creek Resort
45810 State Highway 3
Trinity Center, CA
Project No. NC-017

Sample Name	Sample Depth	Sample Date	TPHg (mg/kg)	MTBE (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	Methanol (mg/kg)	Ethanol (mg/kg)
B-8	15.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-8	20.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-8	25.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-8	30.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-8	35.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-8	40.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-8	45.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-8	50.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-8	55.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-8	60.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-9	15.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-9	20.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-9	25.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-9	30.0'	3/4/02	<1	0.068	0.11	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-9	35.0'	3/4/02	<1	0.3	0.063	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.028	<0.5	<0.05
B-9	40.0'	3/4/02	<1	0.036	0.022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.2	<0.02
B-9	45.0'	3/4/02	<1	0.04	0.0054	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-9	50.0'	3/4/02	<1	0.0065	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-9	55.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01
B-9	60.0'	3/4/02	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.2	<0.01

Groundwater

	TPHg (ug/L)	MTBE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)
B-1	2,400	2000	940	14	46	29
B-4	<50	<5	<0.5	<0.5	<0.5	<2
B-5	1,900	41	160	6.2	4.7	2.2

TPH: Total petroleum hydrocarbons as gasoline

MTBE: Methyl t-Butyl Ether

mg/kg: micrograms per kilogram = parts per million

ug/L: micrograms per liter = parts per billion

<#WW: Not detected at or below the method detection limit as shown.

Benzene: by Method 8260B

Toluene: by Method 8260B

Ethylbenzene: by Method 8260B

Xylenes: by Method 8260B

DIPE: Di-Isopropyl Ether by Method 8260B

TAME: Tertiary Amyl Methyl Ether by Method 8260B

ETBE: Ethyl Tertiary Butyl Ether by Method 8260B

TBA: Tertiary Butyl Alcohol by Method 8260B

*-: Not analyzed, available, or applicable

Table 4
GROUNDWATER ELEVATION AND ANALYTICAL DATA

Cedar Creek Resort
45810 State Highway J
Trinity Center, California
Project No. NC-017

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-1 Screen 20'-40'	11/23/97	2383.55	28.41	2355.14	4,500	3,100	11	13	36	2,300	--	--	--	--	--	--
	12/22/97	2383.55	29.06	2354.49	--	--	--	--	--	--	--	--	--	--	--	--
	2/1/98	2383.55	31.46	2352.09	--	--	--	--	--	--	--	--	--	--	--	--
	2/26/98	2383.55	34.36	2349.19	2,300	65	<0.5	0.6	<0.5	390	--	--	--	--	--	--
	3/14/98	2383.55	32.68	2350.87	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/98	2383.55	26.59	2356.96	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/98	2383.55	24.12	2359.43	910	180	7.2	1.3	6.7	110	--	--	--	--	--	--
	6/6/98	2383.55	24.79	2358.76	--	--	--	--	--	--	--	--	--	--	--	--
	7/18/98	2383.55	22.23	2361.32	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/98	2383.55	15.81	2367.74	95	25	<0.5	<0.5	0.65	26	--	--	--	--	--	--
	10/2/98	2383.55	16.44	2367.11	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/98	2383.55	23.77	2359.78	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/98	2383.55	21.18	2362.37	1,100	260	4.4	5.6	7.3	95	--	--	--	--	--	--
	1/11/00	2383.55	23.25	2360.30	17,000	4,600	27	320	254	1,700	--	--	--	--	--	--
	3/4/00	2383.55	18.29	2365.26	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/00	2383.55	15.97	2367.58	3,140	2,250	6.9	62	68	861	--	--	--	--	--	--
	9/26/00	2383.55	21.75	2361.80	11,900	4,750	17	174	127	2,930	--	--	--	--	--	--
MW-2 Screen 20'-40'	12/22/00	2383.55	25.49	2358.06	4,800	1,620	7.6	28.2	36.5	1,960	--	--	--	--	--	--
	3/7/01	2383.55	27.05	2356.50	1,900	1,130	2.5	1.6	3.1	939	--	--	--	--	--	--
	6/13/01	2383.55	26.04	2357.51	4,700	1,400	3	2.1	3.7	1,100	--	--	--	--	--	--
	9/21/01	2383.55	28.73	2354.82	4,300	1,400	<5	<5	<5	1,200	84	<5	<5	<5	<2,000	<50
	12/15/01	2383.55	36.39	2347.16	410	15	<1	<1	<1	360	370	<1	<1	<1	<1,700	<10
	3/15/02	2383.55	29.76	2351.79	2,400	440	<5	<5	<5	1,400	--	--	--	--	--	--
	6/26/02	2383.55	26.78	2356.77	5,600	1,600	<10	<10	<10	1,700	--	--	--	--	--	--
	9/25/02	2383.55	29.38	2354.17	6,400	1,300	<10	<10	<10	1,800	--	--	--	--	--	--
	12/12/02	2383.55	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	(3/20/2003)	2421.70	32.42	2389.28	<500	<5	<5	<5	<5	1,400	--	--	--	--	--	--
	6/11/03	2421.70	23.62	2398.08	420	23	<1	<1	<1	550	--	--	--	--	--	--
	9/24/03	2421.70	23.47	2398.23	2,300	220	<1.5	<1.5	<1.5	710	--	--	--	--	--	--
	12/15/03	2421.70	27.95	2393.75	2,600	120	<2	<2	<2	940	--	--	--	--	--	--
	3/4/04	2421.70	24.41	2397.29	2,000	44	<1	<1	<1	510	--	--	--	--	--	--
	6/14/04	2421.70	20.17	2401.53	1,500	88	<1.5	3.2	<1.5	440	--	--	--	--	--	--
	12/15/04	2421.70	30.38	2391.32	1,400	46	<1	<1	<1	560	--	--	--	--	--	--
	6/23/05	2421.70	24.86	2396.84	1,800	41	<0.5	<0.5	<0.5	360	--	--	--	--	--	--
MW-2 Screen 20'-40'	11/23/97	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/97	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/1/98	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/26/98	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/98	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/98	2380.71	24.44	2356.27	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/98	2380.71	22.21	2358.50	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	6/6/98	2380.71	22.63	2358.08	--	--	--	--	--	--	--	--	--	--	--	--
	7/18/98	2380.71	21.20	2359.51	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/98	2380.71	17.90	2362.81	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	10/2/98	2380.71	17.21	2363.50	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/98	2380.71	26.50	2354.21	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/98	2380.71	27.75	2352.96	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	1/11/00	2380.71	33.57	2347.14	800	34	<1	<1	<1	170	--	--	--	--	--	--
	3/4/00	2380.71	16.67	2364.04	--	--	--	--	--	--	--	--	--	--	--	--

Table 4
GROUNDWATER ELEVATION AND ANALYTICAL DATA

Cedar Creek Resort
45510 State Highway 3
Trinity Center, California
Project No. NC-017

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-2 Screen 20'-40'	6/1/00	2380.71	12.70	2368.01	<50	<0.3	<0.3	<0.3	0.6	<2	--	--	--	--	--	--
	9/26/00	2380.71	33.79	2346.92	1,400	74	<0.3	<0.3	<0.6	562	--	--	--	--	--	--
	12/22/00	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/30/01	2380.71	39.18	2341.53	1470	39.5	<0.3	<0.3	<0.6	453	--	--	--	--	--	--
	6/13/01	2380.71	32.95	2347.76	520	19	<1	<1	1.1	390	--	--	--	--	--	--
	9/21/01	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/01	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/02	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/26/02	2380.71	34.02	2346.69	300	11	<0.5	<0.5	<0.5	280	--	--	--	--	--	--
	9/25/02	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/12/02	2380.71	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	(3/20/2003)	2418.91	36.94	2381.97	<50	<0.5	<0.5	<0.5	<0.5	85	--	--	--	--	--	--
	6/11/03	2418.91	17.01	2401.90	<50	<0.5	<0.5	<0.5	<0.5	39	--	--	--	--	--	--
	9/24/03	2418.91	31.00	2387.91	180	4.1	<0.5	<0.5	<0.5	82	--	--	--	--	--	--
	12/15/03	2418.91	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3 Screen 20'-40'	3/4/04	2418.91	28.68	2390.23	78	1.8	<0.5	<0.5	<0.5	46	--	--	--	--	--	--
	6/14/04	2418.91	22.21	2396.70	<50	<0.5	<0.5	<0.5	<0.5	1	--	--	--	--	--	--
	12/15/04	2418.91	39.94	2378.97	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/23/05	2418.91	28.11	2390.80	<50	0.74	<0.5	<0.5	<0.5	12	--	--	--	--	--	--
	11/21/97	2388.95	38.75	2350.20	<50	<0.5	<0.5	<0.5	<2	16	--	--	--	--	--	--
	12/22/97	2388.95	39.8	2349.15	--	--	--	--	--	--	--	--	--	--	--	--
	2/1/98	2388.95	39.64	2349.31	--	--	--	--	--	--	--	--	--	--	--	--
	2/26/98	2388.95	36.06	2352.89	<50	<0.5	0.6	0.7	<0.5	<5	--	--	--	--	--	--
	3/14/98	2388.95	34.76	2354.19	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/98	2388.95	20.06	2359.89	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/98	2388.95	27.25	2361.70	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	6/6/98	2388.95	28.14	2360.81	--	--	--	--	--	--	--	--	--	--	--	--
	7/18/98	2388.95	26.18	2362.77	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/98	2388.95	20.01	2368.34	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	10/2/98	2388.95	19.97	2368.98	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/98	2388.95	26.24	2362.71	--	--	--	--	--	--	--	--	--	--	--	--
MW-4 Screen 20'-40'	12/15/98	2388.95	27.58	2361.37	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	1/11/00	2388.95	30.96	2357.99	<50	<0.5	<0.5	<0.5	<0.5	<5	--	--	--	--	--	--
	5/4/00	2388.95	23.42	2365.53	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/00	2388.95	20.53	2368.42	<50	<0.3	<0.3	<0.3	<0.6	3	--	--	--	--	--	--
	9/26/00	2388.95	28.92	2360.03	<50	<0.3	<0.3	<0.3	<0.6	9.6	--	--	--	--	--	--
	12/22/00	2388.95	35.03	2353.92	<50	<0.3	<0.3	<0.3	<0.6	<2	--	--	--	--	--	--
	3/30/01	2388.95	36.96	2351.99	<50	<0.3	<0.3	<0.3	<0.6	5.2	--	--	--	--	--	--
	6/13/01	2388.95	34.22	2354.73	<50	<0.5	<0.5	<0.5	<0.5	1.2	--	--	--	--	--	--
	9/21/01	2388.95	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/01	2388.95	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/02	2388.95	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/26/02	2388.95	35.43	2353.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	9/25/02	2388.95	39.82	2349.13	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/12/02	2388.95	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	(3/20/2003)	2427.12	39.11	2388.01	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/11/03	2427.12	28.24	2398.88	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
MW-5 Screen 20'-40'	9/24/03	2427.12	30.44	2396.68	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	12/15/03	2427.12	37.56	2389.56	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	3/4/04	2427.12	32.01	2395.11	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--
	6/14/04	2427.12	26.07	2401.05	<50	<0.5	<0.5	<0.5	<0.5	0.72	--	--	--	--	--	--
MW-6 Screen 20'-40'	12/15/04	2427.12	39.88	2387.24	<50	<0.5	<0.5	<0.5	<0.5	1	--	--	--	--	--	--
	6/23/05	2427.12	32.91	2394.19	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--

Table 4
GROUNDWATER ELEVATION AND ANALYTICAL DATA

Cedar Creek Resort
45810 State Highway 3
Trinity Center, California
Project No. NC-017

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-4 Screen 20'-40'	11/23/97	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/97	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/1/98	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/26/98	2373.00	30.35	2342.65	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/98	2373.00	23.71	2349.29	--	--	--	--	--	--	--	--	--	--	--	--
	4/25/98	2373.00	21.16	2351.84	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/98	2373.00	17.94	2355.06	--	--	--	--	--	--	--	--	--	--	--	--
	6/6/98	2373.00	16.07	2356.93	--	--	--	--	--	--	--	--	--	--	--	--
	7/18/98	2373.00	15.75	2357.25	--	--	--	--	--	--	--	--	--	--	--	--
	9/3/98	2373.00	12.38	2360.62	--	--	--	--	--	--	--	--	--	--	--	--
	10/2/98	2373.00	11.94	2361.06	--	--	--	--	--	--	--	--	--	--	--	--
	11/27/98	2373.00	21.04	2351.96	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/98	2373.00	22.21	2350.79	--	--	--	--	--	--	--	--	--	--	--	--
	1/11/00	2373.00	28.38	2344.62	--	--	--	--	--	--	--	--	--	--	--	--
	5/4/00	2373.00	9.81	2361.19	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/00	2373.00	5.31	2367.69	--	--	--	--	--	--	--	--	--	--	--	--
	9/26/00	2373.00	27.65	2345.35	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/00	2373.00	33.94	2339.06	--	--	--	--	--	--	--	--	--	--	--	--
	3/30/01	2373.00	33.21	2339.79	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/01	2373.00	27.22	2345.78	--	--	--	--	--	--	--	--	--	--	--	--
MW-5 Screen 15'-35'	9/21/01	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/01	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/02	2373.00	36.47	2336.53	--	--	--	--	--	--	--	--	--	--	--	--
	6/26/02	2373.00	28.11	2344.89	--	--	--	--	--	--	--	--	--	--	--	--
	9/25/02	2373.00	38.39	2334.61	--	--	--	--	--	--	--	--	--	--	--	--
	12/12/02	2373.00	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	(3/20/2003)	2411.13	31.24	2379.89	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/03	2411.13	8.30	2402.83	--	--	--	--	--	--	--	--	--	--	--	--
	9/24/03	2411.13	24.83	2386.30	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/03	2411.13	33.11	2378.02	--	--	--	--	--	--	--	--	--	--	--	--
	3/4/04	2411.13	22.41	2388.72	--	--	--	--	--	--	--	--	--	--	--	--
	6/14/04	2411.13	16.55	2394.58	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/04	2411.13	39.43	2371.70	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/05	2411.13	22.25	2388.88	--	--	--	--	--	--	--	--	--	--	--	--
	5/4/00	2376.88	22.92	2353.96	--	--	--	--	--	--	--	--	--	--	--	--
	6/1/00	2376.88	12.02	2364.86	--	--	--	--	--	--	--	--	--	--	--	--
	9/26/00	2376.88	22.87	2354.01	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/00	2376.88	30.72	2346.16	--	--	--	--	--	--	--	--	--	--	--	--
	3/30/01	2376.88	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/13/01	2376.88	29.23	2347.65	--	--	--	--	--	--	--	--	--	--	--	--
	9/21/01	2376.88	31.54	2345.34	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/01	2376.88	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/15/02	2376.88	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/26/02	2376.88	30.84	2346.04	--	--	--	--	--	--	--	--	--	--	--	--
	9/25/02	2376.88	31.52	2345.36	--	--	--	--	--	--	--	--	--	--	--	--
	12/12/02	2376.88	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	(3/20/2003)	2415.04	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/03	2415.04	22.50	2392.54	--	--	--	--	--	--	--	--	--	--	--	--
	9/24/03	2415.04	22.56	2392.48	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/03	2415.04	Dry	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/4/04	2415.04	26.24	2388.80	--	--	--	--	--	--	--	--	--	--	--	--
	6/14/04	2415.04	18.92	2396.12	--	--	--	--	--	--	--	--	--	--	--	--
	12/15/04	2415.04	31.56	2383.48	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/05	2415.04	18.23	2396.81	--	--	--	--	--	--	--	--	--	--	--	--

Table 4
GROUNDWATER ELEVATION AND ANALYTICAL DATA

Cedar Creek Project
45810 State Highway 3
Trinity Center, California
Project No. NC-017

Well No.	Sampling Date	TOC (feet)	DTW (feet)	GWE (feet)	TPH (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-6	5/4/00	2379.53	22.11	2357.42	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<1	<1	<1	-	-
Screen	6/1/00	2379.53	9.71	2369.82	<50	<0.5	<0.5	<0.5	<0.5	<2	-	-	-	-	-	-
1.5'±5'	9/26/00	2379.53	24.88	2354.65	<50	<0.5	<0.5	<0.5	<0.5	2.3	-	-	-	-	-	-
	12/22/00	2379.53	29.47	2350.06	<50	<0.5	<0.5	<0.5	<0.5	<2	-	-	-	-	-	-
	3/30/01	2379.53	27.93	2351.60	<50	<0.5	<0.5	<0.5	<0.5	<2	-	-	-	-	-	-
	6/13/01	2379.53	24.48	2355.05	<50	<0.5	<0.5	<0.5	<0.5	2.1	-	-	-	-	-	-
	9/21/01	2379.53	32.21	2347.32	<50	<0.5	<0.5	<0.5	<0.5	1.9	-	-	-	-	-	-
	12/15/01	2379.53	28.43	2351.10	<50	<0.5	<0.5	<0.5	<0.5	3.2	<5	<0.5	<0.5	<0.5	-	-
	3/15/02	2379.53	24.49	2355.04	<50	<0.5	<0.5	<0.5	<0.5	1.5	-	-	-	-	-	-
	6/26/02	2379.53	24.85	2354.68	<50	<0.5	<0.5	<0.5	<0.5	1.5	-	-	-	-	-	-
	9/25/02	2379.53	32.13	2347.40	<50	<0.5	<0.5	<0.5	<0.5	1.8	-	-	-	-	-	-
	12/12/02	2379.53	Dry	-	-	-	-	-	-	-	-	-	-	-	-	-
	(3/20/2003)	2417.72	24.79	2392.93	<50	<0.5	<0.5	<0.5	<0.5	2.4	-	-	-	-	-	-
	6/11/03	2417.72	11.77	2405.95	<50	<0.5	<0.5	<0.5	<0.5	1.6	-	-	-	-	-	-
	9/24/03	2417.72	22.95	2394.77	<50	<0.5	<0.5	<0.5	<0.5	1.5	-	-	-	-	-	-
	12/15/03	2417.72	No Access	-	-	-	-	-	-	-	-	-	-	-	-	-
	3/4/04	2417.72	No Access	-	-	-	-	-	-	-	-	-	-	-	-	-
	6/14/04	2418.72	15.91	2402.81	<50	<0.5	<0.5	<0.5	<0.5	1.4	-	-	-	-	-	-
	12/15/04	2418.72	18.28	2400.44	<50	<0.5	<0.5	<0.5	<0.5	1.8	-	-	-	-	-	-
	6/23/05	2418.72	18.00	2400.72	<50	<0.5	<0.5	<0.5	<0.5	1	-	-	-	-	-	-

Taste & odor threshold
MCL
NCRWQCB Cleanup Goals

Notes:

TOC: Top of casing referenced to US Bureau of Reclamation Trinity Lake level (2209.78 feet above mean sea level).

DTW: Depth to water as referenced to benchmark.

GWE: Ground water elevation as referenced to benchmark.

µg/L = micrograms per liter

"-" = Not analyzed, available, or applicable

<MCL: Not detected at or below the method detection limit as shown.

MCL: Maximum contaminant level, and enforceable drinking water standard

Taste & odor threshold: A drinking water standard

TPH: total petroleum hydrocarbons as gasoline by EPA Method 8260B

MTBE: Methyl tertiary butyl ether by EPA Method 8260B

TBA: Tert butanol by EPA Method 8260B

DIPE: Di isopropyl ether by EPA Method 8260B

ETBE: Ethyl tertiary butyl ether by EPA Method 8260B

TAME: tertiary amyl methyl ether by EPA Method 8260B

NCRWQCB: North Coast Regional Water Quality Control Board

Sample date in parentheses indicated new wellhead survey per Geotracker

Table 5
DPE Test Data: Applied Vacuum, Air Flowrate, Radius of Influence, Water Pumping Rate, and Maximum Drawdown
 Cedar Stock Resort
 45810 Hwy 3
 Trinity Center, California

DPE Test Extraction Well No.	Date	Pump Vacuum (in. Hg col.)	Process Air Flowrate (scfm)	Dilution Air Flowrate (scfm)	Well Air Flowrate (scfm)	Water Pumping Rate (gpm)	Max. Depth of Intake Hose (ft bgs)	Maximum Induced Vacuum Measured in Observation Wells (inches water column)			Maximum Drawdown Measured in Observation Wells (feet)		
								MW-2 d = 66'	MW-3 d = 100'	MW-5 d = 123'	MW-2 d = 66'	MW-3 d = 100'	MW-5 d = 123'
MW-1	10/31/05	0.0	0	0	0	0.0	N/A pre-test	0.0	0.00	0.00	0.00	0.00	0.00
MW-1	10/31/05	24.8	78	0	78	0.0	39.0	0.0	0.740	0.00	0.04	-0.04	-0.03
MW-1	11/1/05	25.0	73	0	73	N/A	39.0	0.0	0.785	0.00	-0.18	-0.21	-0.15
MW-1	11/2/05	25.0	73	0	73	0.31	39.0	0.41	2.40	0.03	0.06	0.06	-0.23
MW-1	11/3/05	25.0	73	0	73	N/A	39.0						
MW-1	11/4/05	25.0	73	0	73	0.16	39.0						
MW-1	11/4/05	0.0	0	0	0	0.0	N/A post-test	0.0	0.00	0.00	0.0	0.00	0.00

Notes:

DPE	Dual-Phase Extraction using 25-HP Liquid-Ring Pump
in. Hg col.	Inches mercury column vacuum
scfm	Standard cubic feet per minute
gpm	Gallons per minute
ft bgs	Feet below ground surface
d =	Lateral distance in feet from extraction well to noted observation well
NM	Not measured

Table 6
SUMMARY OF WATER SAMPLE ANALYTICAL RESULTS
Dual-Phase Extraction Treatment
 Cedar Stock Resort
 45810 Hwy 3
 Trinity Center, California

Sample ID	Sampling Date	B ($\mu\text{g/L}$)	T ($\mu\text{g/L}$)	E ($\mu\text{g/L}$)	X ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)	TPHg ($\mu\text{g/L}$)
MW-1 (pre-DPE)	10/31/05	5.8	<0.5	<0.5	<0.5	240	730
mid-fluent 1	11/2/05	<0.5	<0.5	<0.5	2	28	250
MW-1 (post-DPE)	11/4/05	1.6	<0.5	<0.5	<0.5	210	260

Notes:

MW-1 (pre-DPE)	Water sample collected from well approximately one hour prior to DPE treatment
mid-fluent	Water sample collected from DPE equipment process stream is partially treated by process
MW-1 (post DPE)	Water sample collected from monitoring well after DPE test (and after 3x purge)
BTEX	Benzene, Toluene, Ethylbenzene and total Xylenes by EPA Method 8260B
MTBE	Methyl-tert-Butyl Ether by EPA Method 8260B
TPHg	Total Petroleum Hydrocarbons as gasoline by EPA Method 8260B
$\mu\text{g/L}$	Micrograms per liter
<#.#	Not detected at or above laboratory detection limit (#.#)

Table 7
SUMMARY OF AIR SAMPLE ANALYTICAL RESULTS
Dual-Phase Extraction Treatment
Cedar Stock Resort
45810 Hwy 3
Trinity Center, CA

Sample ID	Sampling Date	Extraction Well	<i>results in mg/m3</i>					
			B (mg/m3)	T (mg/m3)	E (mg/m3)	X (mg/m3)	MTBE (mg/m3)	TPHg (mg/m3)
Influent 10/31/05	10/31/05	MW-1	0.5	1.6	1.9	8.5	1.8	680
Influent 11/1/05	11/1/05	MW-1	0.48	0.44	0.40	1.7	5.5	350
Influent 11/2/05	11/2/05	MW-1	0.31	<0.20	<0.20	0.41	3.8	250
Influent 11/3/05	11/3/05	MW-1	0.23	0.22	<0.20	0.23	2.9	130
Influent 11/4/05	11/4/05	MW-1	0.46	0.30	0.30	1.8	5.9	330

Sample ID	Sampling Date	Extraction Well	<i>results in ppmv</i>					
			B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	MTBE (ppmv)	TPHg (ppmv)
Influent 10/31/05	10/31/05	MW-1	0.15	0.43	0.43	1.90	0.50	170
Influent 11/1/05	11/1/05	MW-1	0.15	0.12	0.09	0.38	1.5	89
Influent 11/2/05	11/2/05	MW-1	0.096	<0.05	<0.05	0.094	1.0	64
Influent 11/3/05	11/3/05	MW-1	0.07	0.057	<0.05	0.053	0.8	32
Influent 11/4/05	11/4/05	MW-1	0.14	0.080	0.068	0.41	1.6	83

Notes:

DPE Dual-Phase Extraction (air samples collected from process stream may include dilution air with well gas)
 BTEX Benzene, Toluene, and Ethylbenzene by EPA Method 8260B
 MTBE Methyl-tert-Butyl Ether by EPA Method 8260B
 TPHg Total petroleum hydrocarbons as gasoline by EPA Method 8260B
 mg/m3 Milligrams per cubic meter
 ppmv Molar parts per million
 < #.# Not detected at or above laboratory detection limit (#.#)

Table 8
SUMMARY OF DATA AND RESULTS
Dual-Phase Extraction Treatment
TPHg Extraction Rates
 Cedar Stock Resort
 45810 Hwy 3
 Trinity Center, California

Liquid Phase

Extraction Well No.	DPE Test Date	Max. Depth of Intake Hose (ft bgs)	Test Duration (minutes)	Water Sample ID	TPHg Conc. (µg/L)	Test Segment Water Pumped (gallons)	Test Segment Water Pumping Rate			TPHg Extraction Rate (lb/day)
							(gpm)	(gph)	(gpd)	
MW-1	10/31/05	0	0	MW-1 (pre-DPE)	730	0	0.00	0	0	0.0000
MW-1	11/2/05	39	3,240	mid-fluent 1	250	1,018	0.31	19	452	0.0019
MW-1	11/4/05	0	4,500	MW-1 (post-DPE)	260	737	0.16	10	236	0.0010
Total Gallons Pumped =						1,755				

Vapor Phase

Extraction Well No.	DPE Test Date	Max. Depth of Intake Hose (ft bgs)	Test Duration (minutes)	Air Sample ID	TPHg Conc. (mg/m3)	Applied Vacuum (inches Hg)	Well Flowrate (scfm)	Process Flowrate (scfm)	TPHg Extraction Rate	
									(lb/hr)	(lb/day)
MW-1	10/31/05	39	180	Influent 10/31/05	680	24.8	78	78	0.20	4.8
MW-1	11/1/05	39	1,680	Influent 11/1/05	350	25.0	73	73	0.10	2.3
MW-1	11/2/05	39	2,700	Influent 11/2/05	250	25.0	73	73	0.07	1.6
MW-1	11/3/05	39	3,300	Influent 11/3/05	130	25.0	73	73	0.04	0.9
MW-1	11/4/05	39	4,470	Influent 11/4/05	330	25.0	73	73	0.09	2.2

Units/Abbreviations

TPHg Total Petroleum Hydrocarbons as gasoline EPA Method 8260B

µg/L Micrograms per liter

gpm Gallons per minute

gph Gallons per hour

gpd Gallons per day

mg/m3 Milligrams per cubic meter, equivalent to micrograms per liter (µg/L)

scfm Standard cubic feet per minute (flowrate)

lb Pound

inches Hg Inches mercury column vacuum

< 500 Not detected exceeding 500 mg/m3; for the purpose of calculating TPHg extraction rates a concentration of 499 mg/m3 was assumed.

ft bgs Feet below ground surface

Conversions used in calculations:

1 liter = 0.2642 gallons

1 gram = 1,000,000 µg

1 lb = 453.6 grams

1 ft3 = 7.481 gallons

1m3 = 35.3 ft3

Notes:

TPHg extraction rates are approximations based on discrete sample concentration and flow data.

A 25-HP liquid-ring pump and a thermal oxidizer were utilized for dual-phase extraction testing.

Table 9
SUMMARY OF DATA AND RESULTS
Dual-Phase Extraction Treatment
MTBE Extraction Rates
Cedar Stock Resort
45810 Hwy 3
Trinity Center, California

Liquid Phase

Extraction Well No.	DPE Test Date	Max. Depth of Intake Hose (ft bgs)	Test Duration (minutes)	Water Sample ID	MTBE Conc. (µg/L)	Test Segment Water Pumped (gallons)	Test Segment Water Pumping Rate (gpm) (gph) (gpd)			MTBE Extraction Rate (lb/day)
MW-1	10/31/05	0	0	MW-1 (pre-DPE)	240	0	0.00	0	0	0.00000
MW-1	11/2/05	39	3,240	mid-fluent 1	28	1,018	0.31	19	452	0.00011
MW-1	11/4/05	0	4,500	MW-1 (post-DPE)	210	737	0.16	10	236	0.00041
Total Gallons Pumped =						1,755				

Vapor Phase

Extraction Well No.	DPE Test Date	Max. Depth of Intake Hose (ft bgs)	Test Duration (minutes)	Air Sample ID	MTBE Conc. (mg/m3)	Applied Vacuum (inches Hg)	Well Flowrate (scfm)	Process Flowrate (scfm)	MTBE Extraction Rate (lb/hr) (lb/day)	
	DPE Tests									
MW-1	10/31/05	39	180	Influent 10/31/05	1.8	24.8	78	78	0.0056	0.013
MW-1	11/1/05	39	1,680	Influent 11/1/05	5.5	25.0	73	73	0.0015	0.036
MW-1	11/2/05	39	2,700	Influent 11/2/05	3.8	25.0	73	73	0.0010	0.025
MW-1	11/3/05	39	3,300	Influent 11/3/05	2.9	25.0	73	73	0.0008	0.019
MW-1	11/4/05	39	4,470	Influent 11/4/05	5.9	25.0	73	73	0.0016	0.039

Units/Abbreviations

MTBE	Methyl-tert-Butyl Ether by EPA Method 8260B
µg/L	Micrograms per liter
gpm	Gallons per minute
gph	Gallons per hour
gpd	Gallons per day
mg/m3	Milligrams per cubic meter, equivalent to micrograms per liter (µg/L)
scfm	Standard cubic feet per minute (flowrate)
lb	Pound
inches Hg	Inches mercury column vacuum
ft bgs	Feet below ground surface

Conversions used in calculations:

1 liter = 0.2642 gallons
1 gram = 1,000,000 µg
1 lb = 453.6 grams
1 ft3 = 7.481 gallons
1m3 = 35.3 ft3

Notes:

MTBE extraction rates are approximations based on discrete sample concentration and flow data.
A 25-HP liquid-ring pump and a thermal oxidizer were utilized for dual-phase extraction testing.

APPENDIX A



Report Number : 46696

Date : 11/4/2005

Andrew LoCicero
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 1 Water Sample
Project Name : Cedar Stock
Project Number : NC-17

Dear Mr. LoCicero,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".
Joel Kiff



Report Number : 46696

Date : 11/4/2005

Project Name : Cedar Stock

Project Number : NC-17

Sample : MW-1

Matrix : Water

Lab Number : 46696-01

Sample Date :10/31/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	5.8	0.50	ug/L	EPA 8260B	11/2/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/2/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/2/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/2/2005
Methyl-t-butyl ether (MTBE)	240	0.50	ug/L	EPA 8260B	11/2/2005
TPH as Gasoline	730	50	ug/L	EPA 8260B	11/2/2005
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	11/2/2005
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	11/2/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 46696

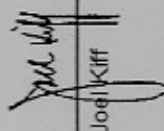
Date : 11/4/2005

QC Report : Method Blank Data

Project Name : Cedar Stock

Project Number : NC-17

Parameter	Measured Value	Method Reporting Limit	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	EPA 8260B	11/2/2005					
Toluene	< 0.50	0.50	EPA 8260B	11/2/2005					
Ethylbenzene	< 0.50	0.50	EPA 8260B	11/2/2005					
Total Xylenes	< 0.50	0.50	EPA 8260B	11/2/2005					
Methyl-4-butyl ether (MTBE)	< 0.50	0.50	EPA 8260B	11/2/2005					
TPH as Gasoline	< 50	50	EPA 8260B	11/2/2005					
Toluene - d8 (Surr)	99.7	%	EPA 8260B	11/2/2005					
4-Bromofluorobenzene (Surr)	104	%	EPA 8260B	11/2/2005					

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 46696

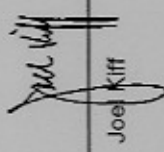
Date : 11/4/2005

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Cedar Stock**

Project Number : **NC-17**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	46691-10	<0.50	40.0	40.0	42.1	41.3	ug/L	EPA 8260B	11/2/05	105	103	1.87	70-130	25
Toluene	46691-10	<0.50	40.0	40.0	39.7	38.3	ug/L	EPA 8260B	11/2/05	99.2	95.8	3.51	70-130	25
Tert-Butanol	46691-10	<5.0	200	200	238	238	ug/L	EPA 8260B	11/2/05	119	119	0.106	70-130	25
Methyl-t-Butyl Ether	46691-10	1.2	40.0	40.0	41.2	41.7	ug/L	EPA 8260B	11/2/05	99.9	101	1.40	70-130	25

Approved By:  Joe Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 46696

Date : 11/4/2005

QC Report : Laboratory Control Sample (LCS)

Project Name : Cedar Stock

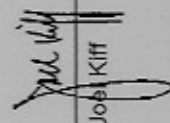
Project Number : NC-17

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	11/2/05	101	70-130
Toluene	40.0	ug/L	EPA 8260B	11/2/05	104	70-130
Tert-Butanol	200	ug/L	EPA 8260B	11/2/05	113	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	11/2/05	92.4	70-130

Approved By:

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800


Joe Kiff

Lab No. 46696 Page 1 of 1

[illegible]



Report Number : 46803

Date : 11/10/2005

Andrew LoCicero
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 2 Water Samples
Project Name : Cedar Stock
Project Number : NC-17

Dear Mr. LoCicero,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 46803

Date : 11/10/2005

Project Name : Cedar Stock

Project Number : NC-17

Sample : Midfluent 1

Matrix : Water

Lab Number : 46803-01

Sample Date : 11/2/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/8/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/8/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/8/2005
Total Xylenes	2.0	0.50	ug/L	EPA 8260B	11/8/2005
Methyl-t-butyl ether (MTBE)	28	0.50	ug/L	EPA 8260B	11/8/2005
TPH as Gasoline	250	50	ug/L	EPA 8260B	11/8/2005
Toluene - d8 (Surr)	96.2		% Recovery	EPA 8260B	11/8/2005
4-Bromofluorobenzene (Surr)	99.9		% Recovery	EPA 8260B	11/8/2005

Sample : MW-1 Post

Matrix : Water

Lab Number : 46803-02

Sample Date : 11/4/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1.6	0.50	ug/L	EPA 8260B	11/8/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/8/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/8/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/8/2005
Methyl-t-butyl ether (MTBE)	210	0.50	ug/L	EPA 8260B	11/8/2005
TPH as Gasoline	260	50	ug/L	EPA 8260B	11/8/2005
Toluene - d8 (Surr)	96.4		% Recovery	EPA 8260B	11/8/2005
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	11/8/2005

Approved By:

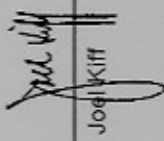
Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number: 46803
Date: 11/10/2005

QC Report : Method Blank Data
Project Name : Cedar Stock
Project Number : NC-17

Parameter	Measured Value	Method		Analysis Method	Date Analyzed	Parameter	Measured Value	Method		Analysis Method	Date Analyzed
		Reporting Limit	Units					Reporting Limit	Units		
Benzene	< 0.50	0.50	ug/L	EPA 8260B	11/8/2005						
Toluene	< 0.50	0.50	ug/L	EPA 8260B	11/8/2005						
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	11/8/2005						
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	11/8/2005						
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	11/8/2005						
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	11/8/2005						
Toluene - d8 (Surr)	97.6		%	EPA 8260B	11/8/2005						
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	11/8/2005						

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC
2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

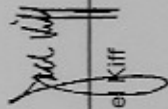
Report Number: 46803
Date: 11/10/2005

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : Cedar Stock

Project Number : NC-17

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	46819-05	<0.50	40.0	40.0	39.3	38.3	ug/L	EPA 8260B	11/8/05	98.3	95.7	2.68	70-130	25
Toluene	46819-05	<0.50	40.0	40.0	38.1	37.4	ug/L	EPA 8260B	11/8/05	95.3	93.4	2.00	70-130	25
Tert-Butanol	46819-05	<5.0	200	200	208	210	ug/L	EPA 8260B	11/8/05	104	105	0.801	70-130	25
Methyl-t-Butyl Ether	46819-05	8.0	40.0	40.0	48.7	48.6	ug/L	EPA 8260B	11/8/05	102	102	0.253	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 46803

Date : 11/10/2005

QC Report : Laboratory Control Sample (LCS)

Project Name : Cedar Stock

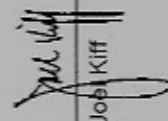
Project Number : NC-17

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	11/8/05	94.7	70-130
Toluene	40.0	ug/L	EPA 8260B	11/8/05	96.7	70-130
Tert-Butanol	200	ug/L	EPA 8260B	11/8/05	100	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	11/8/05	95.3	70-130

Approved By:

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800


Jobi Kiff



2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Project Contact (Hardcopy or PDF To):

Andrew Bocicero
Company/Address: Blue Port Envrnm.
535 3rd St. #100 Emeryville, CA 94608

Phone No.: 707.441.1934 FAX No.: 707.441.1949

Project Number: 707.441.1949 P.O. No:

Project Name: Cedar Stock

Project Address: 45810 Hwy 3

Trinity Center CA

Sample Designation

Midsegment 1

MW-1 Post

Date 11/2/05 1745H

11/4/05 1204H

40 m VOA

SLEEVE

Matrix

WATER

SOIL

Preservative

HNO₃

ICE

NONE

Container

Sample Signature: H. Bocicero

EDF Deliverable To (Email Address):

Global ID:

Recommended but not mandatory to complete this section

Sampling Company Log Code:

California EDF Report? ☐ Yes ☒ No

Chain-of-Custody Record and Analysis Request

Analysis Request

For Lab Use Only

Lead (7421/239.2) TOTAL (X) W.E.T. (X)

Volatile Halocarbons (EPA 8260B)

EPA 8260B (Full List)

Lead Scav. (1.2 DCA & 1.2 EDB - 8260B)

7 Oxygenates (8260B)

7 Oxygenates/TPH Gas/BTEX (8260B)

5 Oxygenates/TPH Gas/BTEX (8260B)

5 Oxygenates/TPH Gas/BTEX (8260B)

TPH Gas/BTEX/MTBE (8260B)

TPH as Motor Oil (M8015)

TPH as Diesel (M8015)

BTEX/TPH Gas/MTBE (8021B/M8015)

BTEX (8021B)

12 hr/24 hr/48 hr/72 hr/1 wk

TAT

Remarks:

Sample Receipt
Temp °C 34.4 Therm. ID# HPL
Initial JHE Date 11/2/05
Time 11:00 Coolant present? N

Bill to:

Relinquished by: H. Bocicero
Relinquished by: JHE
Relinquished by: JHE

Date 11/2/05 Time 11:00
Date 11/4/05 Time 12:04

Relinquished by: JHE
Relinquished by: JHE
Relinquished by: JHE

Distribution: White - Lab, Pink - Originator

Form/coc 121001.m0

APPENDIX B



Report Number : 46695

Date : 11/4/2005

Andrew LoCicero
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 1 Vapor Sample
Project Name : Cedar Stock
Project Number : NC-17

Dear Mr. LoCicero,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 46695

Date : 11/4/2005

Project Name : Cedar Stock

Project Number : NC-17

Sample : Influent 10/31/05

Matrix : Air

Lab Number : 46695-01

Sample Date : 10/31/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.48	0.20	mg/m3	EPA 8260B	11/1/2005
Toluene	1.6	0.20	mg/m3	EPA 8260B	11/1/2005
Ethylbenzene	1.9	0.20	mg/m3	EPA 8260B	11/1/2005
Total Xylenes	8.5	0.20	mg/m3	EPA 8260B	11/1/2005
Methyl-t-butyl ether (MTBE)	1.8	0.20	mg/m3	EPA 8260B	11/1/2005
Benzene (in ppmv)	0.15	0.050	ppmv	EPA 8260B	11/1/2005
Toluene (in ppmv)	0.43	0.050	ppmv	EPA 8260B	11/1/2005
Ethylbenzene (in ppmv)	0.43	0.050	ppmv	EPA 8260B	11/1/2005
Total Xylenes (in ppmv)	1.9	0.050	ppmv	EPA 8260B	11/1/2005
Methyl-t-butyl ether (in ppmv)	0.50	0.10	ppmv	EPA 8260B	11/1/2005
TPH as Gasoline	680	20	mg/m3	EPA 8260B	11/1/2005
TPH as Gasoline (in ppmv)	170	5.0	ppmv	EPA 8260B	11/1/2005
Toluene - d8 (Surr)	95.8		% Recovery	EPA 8260B	11/1/2005
4-Bromofluorobenzene (Surr)	96.8		% Recovery	EPA 8260B	11/1/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 46695

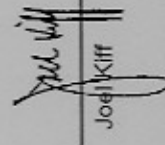
Date : 11/4/2005

QC Report : Method Blank Data

Project Name : Cedar Stock

Project Number : NC-17

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.20	0.20	mg/m3	EPA 8260B	11/1/2005						
Toluene	< 0.20	0.20	mg/m3	EPA 8260B	11/1/2005						
Ethylbenzene	< 0.20	0.20	mg/m3	EPA 8260B	11/1/2005						
Total Xylenes	< 0.20	0.20	mg/m3	EPA 8260B	11/1/2005						
Methyl-t-butyl ether (MTBE)	< 0.20	0.20	mg/m3	EPA 8260B	11/1/2005						
Benzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/1/2005						
Toluene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/1/2005						
Ethylbenzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/1/2005						
Total Xylenes (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/1/2005						
Methyl-t-butyl ether (in ppmv)	< 0.10	0.10	ppmv	EPA 8260B	11/1/2005						
TPH as Gasoline	< 20	20	mg/m3	EPA 8260B	11/1/2005						
TPH as Gasoline (in ppmv)	< 5.0	5.0	ppmv	EPA 8260B	11/1/2005						
Toluene - d8 (Sum)	97.8		%	EPA 8260B	11/1/2005						
4-Bromofluorobenzene (Sum)	92.5		%	EPA 8260B	11/1/2005						



Approved By: Joel Kliff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

Project Contact (Hardcopy or PDF To):

Andrew Lysberg
Company / Address: Blue Rock Environmental
535 3rd Street #100 Eureka CA

Phone #: 707-441-1949

Fax #: 707-441-1949

Project #: NC-17

P.O. #:

Project Name: Cedar Stock

Project Address: 45810 Hwy 3

Trinity Center CA

California EDF Report? ☐ Yes ☒ No

Sampling Company Log Code:

Global ID:

EDF Deliverable To (Email Address):

Andrew@bluerockenv.com

Sampler Signature: Scott Robertson

Sampling

Date

Time

10/31/05 1355

Container

Sleeve

Poly

Glass

Tedlar

X

Preservative

None

HNO₃

HCl

X

Matrix

Water

Soil

Air

X

Sample Designation

Influent 10/31/05

Date

Time

10/31/05 1355

Matrix

Water

Soil

Air

X

Chain-of-Custody Record and Analysis Request

Analysis Request

TAT

☐ 12 hr

☐ 24 hr

☐ 48 hr

☐ 72 hr

☒ 1 wk

For Lab Use Only

MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb

MTBE (EPA 8260B) @ 0.5 ppb

BTEX (EPA 8260B)

TPH Gas (EPA 8260B)

5 Oxygenates (EPA 8260B)

7 Oxygenates (EPA 8260B)

Lead Scav. (1,2 DCA & 1,2 EDB-EPA 8260B)

Lead Scav. (1,2 DCA & 1,2 EDB-EPA 8260B)

Volatiles Halocarbons (EPA 8260B)

Volatiles Organics Full List (EPA 8260B)

Volatiles Organics (EPA 824.2 Drinking Water)

TPH as Diesel (EPA 8015M)

TPH as Motor Oil (EPA 8015M)

Total Lead (EPA 8010)

W.E.T. Lead (STLC)

Remarks:

Bill to:

Received by:

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10/31/05 1545

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10/31/05 1011

Received by:</



Report Number : 46747

Date : 11/8/2005

Andrew LoCicero
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 2 Vapor Samples
Project Name : Cedar Stock
Project Number : NC-17

Dear Mr. LoCicero,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 46747

Date : 11/8/2005

Project Name : Cedar Stock

Project Number : NC-17

Sample : Influent 11/1/05

Matrix : Air

Lab Number : 46747-01

Sample Date : 11/1/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.48	0.20	mg/m3	EPA 8260B	11/4/2005
Toluene	0.44	0.20	mg/m3	EPA 8260B	11/4/2005
Ethylbenzene	0.40	0.20	mg/m3	EPA 8260B	11/4/2005
Total Xylenes	1.7	0.20	mg/m3	EPA 8260B	11/4/2005
Methyl-t-butyl ether (MTBE)	5.5	0.20	mg/m3	EPA 8260B	11/4/2005
Benzene (in ppmv)	0.15	0.050	ppmv	EPA 8260B	11/4/2005
Toluene (in ppmv)	0.12	0.050	ppmv	EPA 8260B	11/4/2005
Ethylbenzene (in ppmv)	0.090	0.050	ppmv	EPA 8260B	11/4/2005
Total Xylenes (in ppmv)	0.38	0.050	ppmv	EPA 8260B	11/4/2005
Methyl-t-butyl ether (in ppmv)	1.5	0.10	ppmv	EPA 8260B	11/4/2005
TPH as Gasoline	350	20	mg/m3	EPA 8260B	11/4/2005
TPH as Gasoline (in ppmv)	89	5.0	ppmv	EPA 8260B	11/4/2005
Toluene - d8 (Surr)	96.6		% Recovery	EPA 8260B	11/4/2005
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	11/4/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 46747

Date : 11/8/2005

Project Name : Cedar Stock

Project Number : NC-17

Sample : Influent 11/2/05

Matrix : Air

Lab Number : 46747-02

Sample Date : 11/2/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.31	0.20	mg/m3	EPA 8260B	11/4/2005
Toluene	< 0.20	0.20	mg/m3	EPA 8260B	11/4/2005
Ethylbenzene	< 0.20	0.20	mg/m3	EPA 8260B	11/4/2005
Total Xylenes	0.41	0.20	mg/m3	EPA 8260B	11/4/2005
Methyl-t-butyl ether (MTBE)	3.8	0.20	mg/m3	EPA 8260B	11/4/2005
Benzene (in ppmv)	0.096	0.050	ppmv	EPA 8260B	11/4/2005
Toluene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/4/2005
Ethylbenzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/4/2005
Total Xylenes (in ppmv)	0.094	0.050	ppmv	EPA 8260B	11/4/2005
Methyl-t-butyl ether (in ppmv)	1.0	0.10	ppmv	EPA 8260B	11/4/2005
TPH as Gasoline	250	20	mg/m3	EPA 8260B	11/4/2005
TPH as Gasoline (in ppmv)	64	5.0	ppmv	EPA 8260B	11/4/2005
Toluene - d8 (Surr)	97.2		% Recovery	EPA 8260B	11/4/2005
4-Bromofluorobenzene (Surr)	95.2		% Recovery	EPA 8260B	11/4/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 46747
Date : 11/8/2005

QC Report : Method Blank Data
Project Name : Cedar Stock
Project Number : NC-17

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.20	0.20	mg/m3	EPA 8260B	11/3/2005	Benzene	< 0.20	0.20	mg/m3	EPA 8260B	11/3/2005
Toluene	< 0.20	0.20	mg/m3	EPA 8260B	11/3/2005	Toluene	< 0.20	0.20	mg/m3	EPA 8260B	11/3/2005
Ethylbenzene	< 0.20	0.20	mg/m3	EPA 8260B	11/3/2005	Ethylbenzene	< 0.20	0.20	mg/m3	EPA 8260B	11/3/2005
Total Xylenes	< 0.20	0.20	mg/m3	EPA 8260B	11/3/2005	Total Xylenes	< 0.20	0.20	mg/m3	EPA 8260B	11/3/2005
Methyl-t-butyl ether (MTBE)	< 0.20	0.20	mg/m3	EPA 8260B	11/3/2005	Methyl-t-butyl ether (MTBE)	< 0.20	0.20	mg/m3	EPA 8260B	11/3/2005
Benzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/3/2005	Benzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/3/2005
Toluene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/3/2005	Toluene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/3/2005
Ethylbenzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/3/2005	Ethylbenzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/3/2005
Total Xylenes (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/3/2005	Total Xylenes (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/3/2005
Methyl-t-butyl ether (in ppmv)	< 0.10	0.10	ppmv	EPA 8260B	11/3/2005	Methyl-t-butyl ether (in ppmv)	< 0.10	0.10	ppmv	EPA 8260B	11/3/2005
TPH as Gasoline	< 20	20	mg/m3	EPA 8260B	11/3/2005	TPH as Gasoline	< 20	20	mg/m3	EPA 8260B	11/3/2005
TPH as Gasoline (in ppmv)	< 5.0	5.0	ppmv	EPA 8260B	11/3/2005	TPH as Gasoline (in ppmv)	< 5.0	5.0	ppmv	EPA 8260B	11/3/2005
Toluene - d8 (Surr)	97.7		%	EPA 8260B	11/3/2005	Toluene - d8 (Surr)	97.7		%	EPA 8260B	11/3/2005
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	11/3/2005	4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	11/3/2005

Approved By: Jodi Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



Report Number : 46807

Date : 11/9/2005

Andrew LoCicero
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 1 Vapor Sample
Project Name : Cedar Stock
Project Number : NC-17

Dear Mr. LoCicero,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff", is written over a printed name.

Joel Kiff



Report Number : 46807

Date : 11/9/2005

Project Name : Cedar Stock

Project Number : NC-17

Sample : Influent 11/4/05

Matrix : Air

Lab Number : 46807-01

Sample Date : 11/4/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.46	0.20	mg/m3	EPA 8260B	11/7/2005
Toluene	0.30	0.20	mg/m3	EPA 8260B	11/7/2005
Ethylbenzene	0.30	0.20	mg/m3	EPA 8260B	11/7/2005
Total Xylenes	1.8	0.20	mg/m3	EPA 8260B	11/7/2005
Methyl-t-butyl ether (MTBE)	5.9	0.20	mg/m3	EPA 8260B	11/7/2005
Benzene (in ppmv)	0.14	0.050	ppmv	EPA 8260B	11/7/2005
Toluene (in ppmv)	0.080	0.050	ppmv	EPA 8260B	11/7/2005
Ethylbenzene (in ppmv)	0.068	0.050	ppmv	EPA 8260B	11/7/2005
Total Xylenes (in ppmv)	0.41	0.050	ppmv	EPA 8260B	11/7/2005
Methyl-t-butyl ether (in ppmv)	1.6	0.10	ppmv	EPA 8260B	11/7/2005
TPH as Gasoline	330	20	mg/m3	EPA 8260B	11/7/2005
TPH as Gasoline (in ppmv)	83	5.0	ppmv	EPA 8260B	11/7/2005
Toluene - d8 (Surr)	96.8		% Recovery	EPA 8260B	11/7/2005
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	11/7/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

QC Report : Method Blank Data

Project Name : Cedar Stock

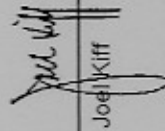
Project Number : NC-17

Report Number : 46807

Date : 11/9/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.20	0.20	mg/m3	EPA 8260B	11/7/2005
Toluene	< 0.20	0.20	mg/m3	EPA 8260B	11/7/2005
Ethylbenzene	< 0.20	0.20	mg/m3	EPA 8260B	11/7/2005
Total Xylenes	< 0.20	0.20	mg/m3	EPA 8260B	11/7/2005
Methyl-t-butyl ether (MTBE)	< 0.20	0.20	mg/m3	EPA 8260B	11/7/2005
Benzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/7/2005
Toluene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/7/2005
Ethylbenzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/7/2005
Total Xylenes (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/7/2005
Methyl-t-butyl ether (in ppmv)	< 0.10	0.10	ppmv	EPA 8260B	11/7/2005
TPH as Gasoline	< 20	20	mg/m3	EPA 8260B	11/7/2005
TPH as Gasoline (in ppmv)	< 5.0	5.0	ppmv	EPA 8260B	11/7/2005
Toluene - db (Surr)	97.4		%	EPA 8260B	11/7/2005
4-Bromofluorobenzene (Sum)	105		%	EPA 8260B	11/7/2005

Approved By:


Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



2795 2nd Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4802

Project Contact (Hardcopy or PDF To):

Andrew Policansky

Company / Address: Blue Rock Environ.

555 3rd St. #100 Berkeley CA 94601

Phone #: 707 491 1944

Fax #: 707 491 1944

Project #: NC-17

P.O. #:

Project Name: Cedars stock

Project Address: 45510 HLW 43

Trinity center CA

Sample Designation

Incident 11/4/05

Date

11/4/05

Time

1130

Sampling

Container

40 ml VOA

Sleeve

Poly

Glass

Tedlar

Preservative

None

HNO₃

HCl

X

Matrix

Water

Soil

Air

MTBE (EPA 8260B) per EPA 8021 level @ 5.0 ppb

MTBE (EPA 8260B) @ 0.5 ppb

BTEX (EPA 8260B)

TPH Gas (EPA 8260B)

5 Oxygenates (EPA 8260B)

7 Oxygenates (EPA 8260B)

Lead Scav. (1,2 DCA & 1,2 EDB-EPA 8260B)

Volatile Halocarbons (EPA 8260B)

Volatile Organics Full List (EPA 8260B)

Volatile Organics (EPA 824.2 Drinking Water)

TPH as Diesel (EPA 8015M)

TPH as Motor Oil (EPA 8015M)

Total Lead (EPA 8010)

W.E.T. Lead (STLC)

TAT

12 hr

24 hr

48 hr

72 hr

1 wk

For Lab Use Only

Chain-of-Custody Record and Analysis Request

Analysis Request

Temp °C

Initials

Date

Time

Therm. ID #

Coolant Present

Yes / No

Remarks:

results in ppm & mg/m³

Bill to:

Received by:

Time

Date

Received by:

Time

Date

Received by Laboratory:

Time

Date

11/07/05

100

Kiff

Analytical

Distribution: White - Lab; Pink - Originator

Rev: 051805

SRG # / Lab No. 46807

Page 1 of 1



Report Number : 46778

Date : 11/10/2005

Andrew LoCicero
Blue Rock Environmental, Inc.
535 3rd Street, Suite 100
Eureka, CA 95501

Subject : 1 Vapor Sample
Project Name : Cedar Stock
Project Number : NC-17

Dear Mr. LoCicero,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 46778

Date : 11/10/2005

Project Name : Cedar Stock

Project Number : NC-17

Sample : Influent 11/3/05

Matrix : Air

Lab Number : 46778-01

Sample Date : 11/3/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.23	0.20	mg/m3	EPA 8260B	11/5/2005
Toluene	0.22	0.20	mg/m3	EPA 8260B	11/5/2005
Ethylbenzene	< 0.20	0.20	mg/m3	EPA 8260B	11/5/2005
Total Xylenes	0.23	0.20	mg/m3	EPA 8260B	11/5/2005
Methyl-t-butyl ether (MTBE)	2.9	0.20	mg/m3	EPA 8260B	11/5/2005
Benzene (in ppmv)	0.070	0.050	ppmv	EPA 8260B	11/5/2005
Toluene (in ppmv)	0.057	0.050	ppmv	EPA 8260B	11/5/2005
Ethylbenzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/5/2005
Total Xylenes (in ppmv)	0.053	0.050	ppmv	EPA 8260B	11/5/2005
Methyl-t-butyl ether (in ppmv)	0.80	0.10	ppmv	EPA 8260B	11/5/2005
TPH as Gasoline	130	20	mg/m3	EPA 8260B	11/5/2005
TPH as Gasoline (in ppmv)	32	5.0	ppmv	EPA 8260B	11/5/2005
Toluene - d8 (Surr)	96.7		% Recovery	EPA 8260B	11/5/2005
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	11/5/2005

Approved By:

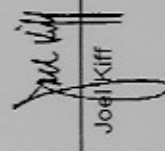
Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number: 46778
Date: 11/10/2005

QC Report : Method Blank Data
Project Name : Cedar Stock
Project Number : NC-17

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.20	0.20	mg/m3	EPA 8260B	11/4/2005
Toluene	< 0.20	0.20	mg/m3	EPA 8260B	11/4/2005
Ethylbenzene	< 0.20	0.20	mg/m3	EPA 8260B	11/4/2005
Total Xylenes	< 0.20	0.20	mg/m3	EPA 8260B	11/4/2005
Methyl-t-butyl ether (MTBE)	< 0.20	0.20	mg/m3	EPA 8260B	11/4/2005
Benzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/4/2005
Toluene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/4/2005
Ethylbenzene (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/4/2005
Total Xylenes (in ppmv)	< 0.050	0.050	ppmv	EPA 8260B	11/4/2005
Methyl-t-butyl ether (in ppmv)	< 0.10	0.10	ppmv	EPA 8260B	11/4/2005
TPH as Gasoline	< 20	20	mg/m3	EPA 8260B	11/4/2005
TPH as Gasoline (in ppmv)	< 5.0	5.0	ppmv	EPA 8260B	11/4/2005
Toluene - d8 (Surr)	97.2		%	EPA 8260B	11/4/2005
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	11/4/2005


Approved By: Joe Kiff

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APPENDIX C

Calculation of Residual Sorbed-Phase Contaminant Mass (Pre Treatment)

Cedar Stock Rsort, Trinity Center, CA

Project No. NC-017

Zone 1 After Remedial Excavation Activities

Mean TPHg conc. (mg/kg)	A (ft ²)	h (ft)	V (ft ³)	p (lb/ft ³)	TPHg mass (lb)
666	90.83	18	1,635	100	108.89
Total TPHg (kg)					49.49
Total TPHg (gals)					17.85

Zone 2 After Remedial Excavation Activities

Mean TPHg conc. (mg/kg)	A (ft ²)	h (ft)	V (ft ³)	p (lb/ft ³)	TPHg mass (lb)
47	25.27	20	505	100	2.38
Total TPHg (kg)					1.08
Total TPHg (gals)					0.39

Zone 3 After Remedial Excavation Activities

Mean TPHg conc. (mg/kg)	A (ft ²)	h (ft)	V (ft ³)	p (lb/ft ³)	TPHg mass (lb)
216	56.59	9	509.3	100	11.00
Total TPHg (kg)					5.00
Total TPHg (gals)					1.80

A = Area

h = thickness

V = volume = A * h

p = soil density (assume 100 lbs/ft³)

TPHg mass = V (ft³) * p (lbs/ft³) * Mean TPHd conc. (unitless)

TPHg = Total petroleum hydrocarbons as gasoline

Conc. = concentration

lb = pound

mg/kg = milligrams per kilogram

kg = kilogram

gal. = gallons

ft. = foot